

CITY OF BIRMINGHAM

---

REPORT OF THE  
MEDICAL OFFICER  
OF HEALTH

FOR THE YEAR

1947





PUBLIC HEALTH DEPARTMENT,  
THE COUNCIL HOUSE,  
BIRMINGHAM, 3.

29th July, 1948.

*To the Chairman and Members,  
Health Committee.*

At the time of preparation of this introduction, shortly after the "appointed day" under the National Health Service Act, some degree of unreality already attaches to considerable sections of the report, relating as these do to services and to institutions which have now passed out of the control of your Committee; while the new services, which have come to you in their place, will not find record until the next Annual Report.

In effect there is here presented the swan-song, so far as the City Council's jurisdiction is concerned, of the hospitals, the sanatoria, the maternity homes, the tuberculosis, the mass radiography and the venereal disease clinics, and the remaining services which have now been transferred to the care of the Birmingham, or in one instance of another, Regional Hospital Board. The occasion has been most fittingly marked by the farewell gathering which on your initiative, Mr. Chairman, and with the cordial endorsement of the Health Committee, was held immediately before the "appointed day"; a gathering at which, to the 1,000 representatives present out of the 3,000 staff who were to be transferred, heartfelt gratitude and goodwill were expressed for the fine service which they had rendered to the City Council in their several capacities, and good wishes for their future welfare in a service which will continue to be an integral part of the wider health services to which the City Council, the Birmingham Regional Hospital Board, the Board of Governors of the Teaching Hospitals and the Birmingham Executive Council will all make their indispensable contributions.

The year 1947, preceding as it did this great administrative and executive change, was one the records of which from the health standard were generally satisfactory. The infant mortality was only one point above that for 1946, so far a record for the City. The mortality among infants under 4 weeks of age dropped notably below the rate for that same unusually favourable year. Diphtheria, in the comparatively recent past a grave danger to the young child, caused only three deaths during the year—and even of these, one was far from certain in diagnosis, in a child only partially immunised, while the other two were in non-immunised children.

In the sphere of tuberculosis, while the number of notifications of new cases of tuberculosis of the lungs increased to the highest so far recorded since 1933, it can fairly be said that in substantial measure this is explained by more effective and thorough ascertainment, as shown by the much higher proportion of early cases detected, the proportion of early cases being nearly double that recorded in 1939.

In relation to the venereal diseases, known new cases of all forms have been markedly fewer than in 1946, which it is to be hoped will represent the highwater mark of their incidence in the City. The fact that new cases of congenital syphilis continue to be fewer in number year by year is in large degree the mark of an effective ante-natal service.

Among the acute infectious diseases, anterior poliomyelitis (infantile paralysis) was the only one to give serious cause for anxiety during the year. Birmingham shared the experience of the whole country in a wave of this grave infection ; and particulars as to its extent are contained in the report.

Reference is made in some detail to housing problems, with special reference to the five Re-development Areas extending over the major portion of the central congested region of the City. Some indication has been attempted, both of the type and of the difficulty of the problems which face the Corporation in this sphere.

Reference will also be found to the Child Health Institute as a comparatively new development bringing together curative and preventive medicine in the interests of the young child, and having also its marked significance in relation to the quality of service of the future medical practitioner.

It is a pleasure to record the admirable spirit of keenness and co-operation which has been manifest throughout all sections of the Department, and I should wish to express my indebtedness to all for the cordiality of fellowship, which has made this Department a particularly happy one. To you, Mr. Chairman, and to the members of the Health Committee, I am grateful for the understanding, support and vigorous initiative which play no small part in the production of that keen and contented atmosphere in the Department, and in the maintenance of a wide-ranging service of health for the public.

I am,

Your obedient servant,

H. P. NEWSHOLME,  
*Medical Officer of Health.*



# SECTION A

## SUMMARY OF STATISTICS

For the Year 1947

Area (in acres) .....	51,147
Population (Census, 1931) .....	1,002,603
Population, estimated by Registrar-General (Civilians only) as at 30th June, 1947.	1,076,230

*The Registrar-General's estimated mid-year civilian population has been used for all relevant purposes throughout this report, and in addition where rates are based on less than twenty instances, these rates are printed in italics.*

Extracts from Vital Statistics of the year 1947 :

Birth-rate per 1,000 population .....	22.2 (23,935 live births)
Stillbirth rate per 1,000 total live and stillbirths .....	23.5 (577 stillbirths)
Crude Death-rate per 1,000 population .....	11.1 (11,999 deaths)

*Maternal Mortality :—*

	<i>Excluding maternal deaths after abortion</i>	<i>Including maternal deaths after abortion</i>
From Sepsis: (7 deaths, 4 abortions included)		
Rate per 1,000 live and still births .....	0.12	0.29
From other puerperal causes (17 deaths, 2 abortions included)		
Rate per 1,000 live and still births .....	0.61	0.69
	<hr/>	<hr/>
Total Maternal Mortality .....	0.73	0.98
	<hr/>	<hr/>

*Infant Mortality :—*

Deaths of infants under one year of age per 1,000 live births :

Legitimate .....	39
Illegitimate .....	64
Legitimate and illegitimate .....	41

## POPULATION AND MORTALITY STATISTICS

### Population

In view of the fact that the Registrar-General has now larger access to population data than are available locally, the practice of utilising a local estimate of population has been discontinued.

The Registrar-General estimates the civilian population at 1,076,230.

### Births (see page 23)

### Deaths

The number of deaths during 1947 was 11,999, giving a death-rate of 11.1. The average rate for the ten years prior to 1947 was 11.9, while that for 1946 was 11.3. The death rates for 1940 and 1941 were swollen by air raid deaths.

The changes in the death-rate in England and Wales and in Birmingham during the past forty-seven years can be seen from the figures below, although the figures for 1940 and 1941, enlarged as they are by air-raid deaths, obviously cannot fairly be compared with others.

#### DEATH-RATES IN BIRMINGHAM AND ENGLAND AND WALES

			<i>Birmingham</i>	<i>England and Wales</i>
1901-1905	.....	.....	16.5	16.0
1906-1910	.....	.....	15.0	14.7
1911-1915	.....	.....	14.6	14.3
1916-1920	.....	.....	13.4	14.4
1921-1925	.....	.....	11.5	12.1
1926-1930	.....	.....	11.6	12.1
1931-1935	.....	.....	11.2	12.0
1936	.....	.....	11.3	12.1
1937	.....	.....	11.7	12.4
1938	.....	.....	10.9	11.6
1939	.....	.....	11.4	12.1
1940	.....	.....	14.3	14.3
1941	.....	.....	13.2	12.9
1942	.....	.....	11.8	11.6
1943	.....	.....	12.1	12.1
1944	.....	.....	11.2	11.6
1945	.....	.....	11.2	11.4
1946	.....	.....	11.3	11.5
1947	.....	.....	11.1	12.0

The death-rates in Birmingham from the more prominent causes of death over a series of years are shown below :—

				<i>Cancer</i>	<i>Diseases of the Heart and Blood vessels</i>	<i>Bronchitis, Pneumonia, and other respiratory diseases</i>
1938	.....	.....	.....	1·59	3·45	1·18
1939	.....	.....	.....	1·55	3·65	1·16
1940	.....	.....	.....	1·61	3·31	2·21
1941	.....	.....	.....	1·70	3·10	1·94
1942	.....	.....	.....	1·77	2·87	1·51
1943	.....	.....	.....	1·83	3·02	1·73
1944	.....	.....	.....	1·75	3·15	1·40
1945	.....	.....	.....	1·84	3·14	1·44
1946	.....	.....	.....	1·90	3·36	1·37
1947	.....	.....	.....	1·83	3·34	1·48

Amongst males 76·3% of cancer deaths were due to cancer of digestive and respiratory organs, whilst 64·3% of cancer deaths in women occurred in digestive and genital organs, and 20·2% were due to cancer of the breast.

## SECTION B.

### GENERAL PROVISION OF HEALTH SERVICES

#### 1. General Services.

##### (a) Laboratory facilities

##### *I—City Bacteriological Laboratory*

The work done in the City Bacteriological Laboratory is set out in detail below :

##### GENERAL LABORATORY

	<i>No. of Specimens received for examination</i>
Swabbings, various .....	2,435
„ diphtheria bacilli .....	2,934
Sputum for tubercle bacilli .....	1,556
Sputum others .....	710
Faeces cultures .....	3,339
Faeces tubercle bacilli .....	1,373
Fluids .....	728
Blood for Widal's .....	479
Stomach washes .....	297
Urines .....	500
Milks .....	1,124
Milks tubercle bacilli .....	1,748
Waters .....	970
Shell fish .....	43
Foods .....	30
Creams .....	68
Ice creams .....	348
Blood cultures .....	39
Cord powders .....	1,687
Measles serum .....	239
Blood films .....	24
Miscellaneous .....	14
	<hr/> 20,685

##### VENEREAL DISEASES LABORATORY

Blood for Wassermann reaction .....	41,928
Cerebro-spinal fluid—	
(a) For Wassermann reaction .....	1,519
(b) For cell count .....	534
Films for gonorrhœa .....	16,193
Urine examinations .....	468
Gonococcal fixation tests .....	5,445
Vaccines prepared .....	17
Cultures prepared .....	13,139
Van den Bergh's tests .....	2
Kahn tests .....	34,047
Serum for spirochaetes .....	1
Paul Bunnell tests .....	8

TOTAL ..... 

---

113,301

---

## II—City Analytical Laboratory

The following statement indicates the samples analysed in the City Analyst's Department :

### *Samples Analysed :*

Food and drug samples	.....	.....	.....	5,335
Soot gauge samples	.....	.....	.....	24
Fertilisers and feeding stuffs	.....	.....	.....	19
Miscellaneous samples	.....	.....	.....	1,447
TOTAL	.....	.....	.....	<u>6,825</u>

### *Samples Adulterated, etc. :*

Samples adulterated	.....	.....	.....	344
False labels	.....	.....	.....	9
Number of prosecutions	.....	.....	.....	28
Number of fines	.....	.....	.....	3
Amount of fines and costs	.....	.....	.....	£28/13/0
Number of cautions	.....	.....	.....	139

Details of this work are given in the Report of the City Analyst, printed separately.

## III—Hospital Laboratories

Laboratories are provided at :

Dudley Road Hospital : General and biochemical.

Selly Oak Hospital : General and biochemical.

Little Bromwich Hospital : Bacteriological, infectious diseases.

Yardley Green Road Sanatorium : Bacteriological, etc., tuberculosis.

Carnegie Institute : General and biochemical.

### (b) Ambulance Services

The Health Committee have four ambulances for acute infectious diseases (Little Bromwich Hospital) and two for tuberculosis. The ambulance services for the general hospitals are supplied through the Birmingham Hospitals Contributory Association in conjunction with the St. John Ambulance Brigade.

The Watch Committee have eight police ambulances for accidents and other casualties.

There are also ambulances at some of the large voluntary hospitals and at certain works.

### (c) **Nursing in the Home**

Arrangements have been in force, over a period of years, for the home nursing of a number of conditions by the district nurses of the local District Nursing Associations, and 430 cases were thus nursed during 1947. This figure includes 244 cases of pneumonia and 142 of puerperal pyrexia, and 32 children under five years old are included in the total of 430 cases.

Apart from hospital treatment, cases of ophthalmia neonatorum and of other forms of ophthalmia or eye injury capable of leading to blindness are visited in their homes, as far as necessary, by nurses from the Eye Hospital, an annual grant being paid to the hospital in respect of this service.

#### *Removal of Aged and Infirm.*

During 1947, 51 cases were investigated with a view to possible removal to an institution under either Section 38 of the Birmingham Corporation (General Powers) Act, 1929, or Section 48 of the 1935 Act. Six of the cases were voluntarily admitted to Institutions, and a further three cases died before appropriate action could be taken to remove them.

The remaining 42 cases investigated were found to lie outside the scope of either Section 38 or 48, and in this regard it was noted that a number of them showed signs of undue pressure having been put on the aged person to enter an institution by either a sub-tenant or by interested relatives, in order either to obtain possession of the house or to avoid the responsibility of their care.

Generally speaking, old persons are very reluctant to enter an institution in their declining years, and prefer to maintain an independent life under substandard conditions rather than submit to the very necessary though gentle discipline of a hospital or infirmary ward.

No application was made for compulsory removal to an institution during the year.

### (d) **Treatment Centres and Clinics**

*Anti-Tuberculosis Centre.* (See page 156).

*Maternity and Child Welfare Centres.* (See page 53).

*Public Dispensaries (Voluntary)*

Dispensaries for the treatment of the sick poor are provided by six different voluntary societies in the City, chief among which is the Birmingham General Dispensary. This latter, with different branches, treated 37,054 patients during the year, while the others provided treatment in a lesser proportion.



(e) Hospitals

PUBLIC GENERAL HOSPITALS

General Statistics

The statistics relating to the work of Dudley Road and Selly Oak Hospitals and Selly Oak Infirmary are given below.

IN-PATIENTS

	<i>Acute Sick</i>		<i>Chronic Sick</i>
	<i>Dudley Road</i>	<i>Selly Oak</i>	<i>Selly Oak</i>
	<i>Hospital</i>	<i>Hospital</i>	<i>Infirmary</i>
*Total number of admissions (including infants born in hospital) .....	19,355	9,958	1,929
Number of women confined in hospital .....	3,135	820	—
Number of live births .....	3,082	813	—
Number of stillbirths .....	122	21	—
Number of deaths among the newly-born (under four weeks, born in hospital) .....	93	41	—
*Total number of deaths .....	1,228	400	826
*Total number of discharges (including infants born in hospital) .....	18,183	9,522	1,105

\* Excluding E.M.S. cases and service casualties.

OUT-PATIENTS

	<i>Acute Sick</i>		<i>Chronic Sick</i>
	<i>Dudley Road</i>	<i>Selly Oak</i>	<i>Selly Oak</i>
	<i>Hospital</i>	<i>Hospital</i>	<i>Infirmary</i>
Number of persons seen in out-patient department .....	26,642	17,115	Run in con-
Total number of attendances .....	96,850	81,145	junction
Number of women seen at ante-natal clinic .....	2,749	1,012	with
Total attendances at ante-natal clinic .....	12,113	6,158	<i>Selly Oak</i>
			<i>Hospital</i>

Dudley Road Hospital

This is a municipal general hospital for the acute sick, and is situated in the north-western portion of the City.

DR. T. M. ANDERSON, Medical Superintendent of the Hospital, reports as follows :—

YEARLY REPORT OF THE MEDICAL SUPERINTENDENT  
DUDLEY ROAD HOSPITAL

JANUARY 1st to DECEMBER 31st, 1947

We have learnt to expect that each year steady and increasing demand will be made upon us. Close on twenty thousand patients are now admitted for treatment each year, and all out-patient departments are working at high pressure under difficult conditions, and often quite inadequate accommodation.

We have fortunately been able to reinforce our medical staff, and are glad to welcome a number of new physicians, assistant physicians, assistant surgeons, assistant gynaecologists and obstetricians, radiologist, assistant pathologist and assistant biochemists.

The appointment of Assistant Physicians and Surgeons has enabled us to operate an appointments system for new out-patients. We hope later to extend this arrangement to cover all out-patients when the necessary accommodation and increased nursing staff become available.

The medical staff, in addition to their ordinary routine work, arranged to deliver a series of lectures to forty student nurses, under the intensive course of training for nursing orderlies from the Services, organised by the Ministry of Health. These students are accommodated in a hut, erected in the hospital grounds for this purpose, and a Sister-Tutor, appointed by the Ministry of Health, is in charge.

A post-graduate refresher course for insurance practitioners was held here from April to July, 1947. Lectures were given twice weekly on medicine, surgery, gynaecology and obstetrics, and pathology, by senior members of the medical staff. About twenty doctors attended this course.

Regular bi-monthly clinical meetings are held in the Hospital, and are well attended by both senior and junior staff, resident and non-resident.

Mr. Wentworth Taylor reports that the Maternity Department has worked to full capacity, 4,037 cases being admitted and 3,135 confinements undertaken. Although many cases were admitted for domestic reasons, a considerable amount of abnormal midwifery was encountered.

Of eight maternal deaths, three were associated with severe pregnancy toxæmia, two occurred suddenly due to pulmonary embolism, two (one undelivered at 24th week of pregnancy) due to sepsis and one due to pulmonary oedema and heart failure following forceps delivery.

Of ninety deaths of infants under ten days, sixty were due to prematurity, nine to severe foetal abnormalities, and three to neo-natal infections. Including all minor degrees the incidence of sepsis in infants was 5%. During the year, nine infants presented signs of severe hæmolytic disease and three died despite early transfusion.

309 living premature infants were delivered, 31 being less than 3 lb. weight ; 238 were reared. Two of those who died had abnormalities incompatible with survival.

122 infants were stillborn, an adequate cause being found in all but 27 cases. In this group the foetus had died before the onset of labour and no reason could be found. Despite more careful and complete investigation each year, this class of still-birth appears to be increasing.

Dr. J. D. Brown, who succeeded Mr. D. H. Cummack as Radiologist here in October, 1947, reports that the work of both the Diagnostic and the Therapy Departments has increased during the last few years, as the following figures show.

	<i>Diagnostic Department</i>	<i>Therapy Department</i>
	<i>No. of Radiographs</i>	<i>No. of Irradiations</i>
1940 .....	22,612	—
1941 .....	23,968	1,771
1942 .....	26,484	613
1943 .....	24,006	1,150
1944 .....	27,073	2,369
1945 .....	28,714	2,182
1946 .....	29,052	4,420
1947 .....	37,204	5,890

Dr. W. Whitelaw, Senior Pathologist, reports great increase in the work of his Department ; nearly 4,000 more examinations were required than in 1946. A special section of hæmatology has been organised by him, and this is working well. Miss Trought, Senior Biochemist, has now two Assistant Biochemists with the B.Sc. qualification, and her Department is always at high pressure.

Miss O. M. Snowden, O.B.E., retired from the Hospital Service in November, 1947. She was appointed Matron here in May, 1925, and continued in that office until 1941, when she was appointed Matron-in-Chief to the Municipal Hospitals. This was a war-time appointment which terminated on her retirement.

I have had the pleasure of working with Miss Snowden during all that period, and I should like to express the high appreciation which we all felt for her tremendous energy, her high courage and entire devotion to duty. She was an exceptional person and had great ability. I know of no one who worked harder for the welfare of her nurses.

We welcome Miss A. Birtwistle, who was appointed Matron in November, in just recognition of the good work which she has done as Deputy Matron here since 1943.

Miss Birtwistle reports that, during the year 1947, we continued to experience great difficulty on the nursing side through lack of trained nurses. The recruitment of student nurses remained much the same as in 1946. There was, however, a reduction in wastage (40% approximately), in 1947. We maintained full holidays and block system training without having to curtail the number of hospital beds. Staff nurses and student nurses are working more than a 48 hour week. The health of the staff has been satisfactory.

During 1947, two Dudley Road Hospital trainees visited Canada, and the United States of America, attending the International Congress of Nurses in Atlantic City, and visiting many hospitals in Toronto, Montreal, New York and Philadelphia.

The Pre-Nursing Course, begun in 1941 at this Hospital, continues ; 17 girls commenced in September, 1947, and it is hoped that all will be successful and will enter for general training in September, 1948

The modernisation of Wards B.9 and B.10 has been completed and this has considerably facilitated the nursing of patients, and also improved the conditions for the nursing staff.

A separate Occupational Therapy Department has been erected and is now functioning, by the adaptation of a hutment, which would appear to meet the present needs satisfactorily.

Owing to the age of the building and plant, and lack of proper maintenance over the past few years, extensive repairs and maintenance work have been undertaken during the year.

I should like to thank all members of our hospital staff who have worked with such energy and devotion to duty. The nursing staff particularly, deserve special credit for their fine effort.

### Dudley Road Hospital

#### Yearly Report, January 1st to December 31st, 1947

Admissions for the year	.....	19,355	} Excluding E.M.S. cases such as War Casualties, Members of H.M. Forces, Transferred War Workers, etc.
Total discharges	.....	18,183	
Total deaths	.....	1,228	
No. of women confined in hospital	.....	3,135	
No. of live births	.....	3,082	
Maternal Deaths	.....	8	}
E.M.S. cases	.....	353	

<i>Duration of Stay</i>	<i>Excluding E.M.S.</i>	<i>Including E.M.S.</i>
Under four weeks	17,418	17,714
Four weeks and under 13 weeks	1,793	1,854
Thirteen weeks and over	200	211
Average number of beds occupied	.....	747
Highest number of beds occupied (on 17th January, 1947)	.....	862
Lowest number of beds occupied (on 24th December, 1947)	.....	606

#### Operations

Number of major operations	.....	6,056
(Minor and dental operations excluded)	.....	plus 574 bloods taken

#### Out-Patients

	<i>Excluding E.M.S.</i>	<i>Including E.M.S.</i>
Total number of out-Patients	26,642	27,400
Total attendances	96,850	100,722
Ante-natal clinic (mothers)	2,749	2,749
Ante-natal clinic (attendances)	12,113	12,113

#### Pathological Department

Examinations	.....	18,313
Autopsies	.....	684



### *Bio-Chemical Department*

Examinations .....	17,859
--------------------	--------

### *Radiological Department*

Radiographs .....	37,204
Fluoroscopic examinations .....	2,545
Examinations (patients) .....	18,794

These figures include :—

Opaque meal examinations .....	1,687
Opaque enema examinations .....	272
Oesophageal examinations .....	63
Pregnancy examinations .....	1,277
Urinary tract examinations .....	741
Cholecystograms .....	435
Bone examinations .....	8,252
Chest examinations .....	7,681
Miscellaneous .....	196

### *Physio-Therapy Department*

Attendances .....	71,606
-------------------	--------

### *Dental Department*

Attendances .....	869
-------------------	-----

### *Maternity Department.*

Total number of deliveries .....	3,135	Booked .....	2,770
		Emergencies .....	365
Still-births .....	122		
Neo-natal deaths within ten days of birth .....	90		
Maternal deaths .....	8 (including one undelivered 24 weeks pregnant)		

### **Selly Oak Hospital and Infirmary**

This is a municipal general hospital for the acute sick, and its adjoining infirmary accommodates chronic sick. Both are situated on the border of Bournville in the southern sector of the City.

MR. R. P. S. KELMAN, Medical Superintendent, reports as follows:

#### **(a) Selly Oak Hospital.**

The admissions during the year have had to be curtailed owing to the general shortage of nursing staff, but even then, the total has reached the figure of 10,035. Advantage was taken of the ward closed to complete the interior decoration of all wards, the last ward being completed in July. The average duration of stay of patients was 14·4 days. The new nurses' home (Springfield), was opened on 6th June by the Lord Mayor (Alderman A. F. Bradbeer, J.P.). This welcome addition to the accommodation for student nurses has relieved one of our chief anxieties, and has enabled the Preliminary Training School to function more easily.

The following are the examination results for the year :—

	<i>Passes</i>	<i>Failures</i>
<i>State Examination Results :</i>		
Preliminary examination .....	30	1
Final examination .....	27	2
State Certified Midwives' examination (Part I) .....	33	6

The new recreation hall in Springfield Nurses' Home has been used to the fullest extent both for numerous dances, concerts and daily for badminton. Credit is due to Miss V. E. S. Adams, the Warden, and Miss E. Rockey, the Assistant Warden, for the smooth working of the home and recreation hall.

Many improvements have been made to the existing Out-Patient Department. An army hut has been erected to provide office and additional waiting accommodation and the adjoining ward (C.2) has been included in the Department for the ante-natal, post-natal, gynæcological and baby clinics. The following weekly Out-patient Clinics have been held during the year :—

(a) *Consultative Clinics :*

Medical .....	11
Surgical .....	15
Ear, nose and throat .....	3
Gynaecological .....	2
Obstetric—Ante-natal .....	3
Post-natal .....	1
Baby .....	1
Psychological .....	1
Dental .....	1

(b) *Daily Treatment Clinics :*

Fracture clinic  
 Septic hand clinic  
 Minor surgical out-patient clinic  
 Physiotherapy clinic  
 Remedial exercise clinic  
 Occupational therapy clinic  
 Dental clinic

A source of anxiety is the growing lists of patients waiting for admission. The immediate solution appears to be a return to the war-time method of using a recovery unit reasonably near at hand, to enable patients to be transferred before complete recovery and so to provide more hospital beds for more new admissions. The beds equipped in the hospital are strictly limited by the nursing staff available. The nursing staff have been assisted in their work by the maximum employment of assistant nurses and ward orderlies of both sexes. Ward domestic staff have been maintained at a high level, but difficulties have arisen through absenteeism.

Our recreational facilities have been much extended during the year. All the hard tennis courts are now back to normal and the Cricket Club has had a very successful season with two teams. The Male Officers'



Recreation Club has also run a billiards, snooker and darts section. This Club is to be congratulated on the number of excellent dances and whist drives given during the year.

Better accommodation has been provided for the Almoners, who have been increased to three. This has enabled more work to be carried out for the chronic sick in the adjoining Infirmary. There has been an increase of 186 patients investigated, and all patients attending the diabetic clinic are now interviewed. Arrangements for patients' transport have taken up an increasing amount of time. The Hospital Car Service continues to give valuable help. There has been a considerable increase in the sums distributed from the Patients' Comforts Funds. Fortunately the donations to the two patients' comforts funds have been £217 8s. 0d. A summary of the financial statement for this department is as follows:—

General receipts	.....	.....	.....	.....	.....	.....	£2,034	4	8
General expenditure	.....	.....	.....	.....	.....	.....	£2,888	3	4
Sums recovered for surgical appliances	.....	.....	.....	.....	.....	.....	£317	9	10

The following are the patients referred for assistance:—

Out-patients	.....	.....	.....	.....	.....	.....	.....	642
In-patients (Hospital)	.....	.....	.....	.....	.....	.....	.....	736
In-patients (Infirmary)	.....	.....	.....	.....	.....	.....	.....	172
								<hr/>
								1,550
								<hr/>

Considerable progress has been made in the Pharmaceutical Department by the acquisition of modern equipment. The aseptic laboratory prepared 3,200 litres of sterile solutions for intravenous therapy and dispenses 5,000 million units of penicillin. Sterile intramuscular injections prepared have been numerous and include solutions of morphia, hyoscine, nikethamide, procaine, ephedrine, calcium gluconate, etc. The production of the intravenous solutions in the laboratory represent a saving of £350 on the market prices to purchase. The galenical laboratory prepared 500 gallons of various kinds of emulsions, creams and lotions for use in the Hospital and various other institutions. During and since the war these facilities have provided products otherwise unobtainable. 50,000 in-patient and 8,200 out-patient prescriptions were dispensed during the year. The staff consists of 3 pharmacists, 1 dispenser, 3 articled pupils and 2 porters. During the year one of the pupils gained the Leverhulme Scholarship.

The Surgical Mechanics' Department, with the return of staff, has returned to pre-war strength. Additional equipment has been supplied and it has maintained all surgical instruments, surgical equipment and

aseptic furniture in a state of good repair. The following surgical appliances have been made in the Department :—

Trusses	.....	117
Callipers	.....	34
Double leg irons	.....	17
Spinal supports	.....	39
Boot alterations	.....	70
Boot—cork raisings	.....	21
Wrist supports	.....	11
Arch supports	.....	19
Plaster pylons	.....	4
Wire jaw splints	.....	7

Great development has taken place in the Occupational Therapy Department. The following were the treatments given :—

Out-patients' remedial treatments	.....	1,491
In-patient remedial treatments	.....	580
In-patient diversional treatments	.....	3,769

There is still further scope for occupational therapy for in-patients, particularly for the chronic wards of the Infirmary.

The orthopædic and fracture out-patient clinics are attended by the Occupational Therapists to report progress on patients, to obtain directions from the surgeons and to learn more about the patients.

The post of Superintendent Physiotherapist was filled in March and the establishment of the Department was steadily brought up to normal during the year. 23,155 out-patient and 9,861 in-patient treatments were given. The rehabilitation gymnasium has proved to be an increasingly popular and useful sub-section. Two physiotherapists are now employed in the gymnasium and both class work and individual treatments are given. The classes given include :—

- Breathing classes for asthmatic and tonsil and adenoid cases, etc.
- Orthopædic classes.
- Classes for re-education in walking and postural deformities.
- Classes for the student nurses Preliminary Training Schools.

A close liaison exists between the Physiotherapy and Occupational Therapy Departments, some patients receiving treatment in both departments. Various ward classes in both the Hospital and the Infirmary are carried out regularly. Classes in the Maternity Wards have been in existence for some years and now greater emphasis is being placed on post-operative classes in the surgical wards. The larger staff has made possible the commencement of classes in the chronic wards of the Infirmary and these have proved most successful in leading to cases being made ambulatory and fit for discharge. Short-wave therapy has been used much more and an additional modern unit is now on order. The epidemic of acute anterior poliomyelitis has

added to the work of the department. Space has limited the further development of the ultra violet ray department. It is hoped that the re-modelling of the old hospital laundry as a Physiotherapy Department, already approved, will soon be carried out.

The Obstetric Department has worked to full capacity and as the figures below show is a centre for abnormal midwifery.

Total No. of Women confined in Hospital ..... 822

*Complications of Pregnancy :*

Hyperemesis .....	10
Pre-eclampsia .....	38
Eclampsia .....	4
Ante-partum haemorrhage .....	31
Multiple pregnancy .....	15
Cardiac disease .....	12
Hypertension .....	5
Pulmonary tuberculosis .....	3
Hydramnios .....	9
Contracted pelvis .....	94
	<hr/>
	221

*Abnormalities of Labour :*

Caesarean Section .....	80
Forceps .....	39
Episiotomies .....	255
Surgical inductions .....	32
Abnormal presentation .....	39
Manual removal placenta .....	11
	<hr/>
	456

*Infant Mortality :*

Stillbirths .....	18
Neo-natal deaths .....	16

*Premature Births* ..... 94

The Clinical Photography Department was recommenced at the end of the year. In addition to clinical and microphotography the clinical photographer is acting as the technician to the electro-cardiograph department.

Improved facilities for visitors have been provided in a heated wooden hut near the entrance to the Hospital. Another urgent need is for sleeping accommodation for relatives who have to remain near at hand when patients are dangerously ill.

The canteen has worked very successfully throughout the year, and has added greatly to the well-being of the staff.

The Dental Department is now fully staffed and temporary accommodation has been found in the large side ward of C.2 ward. This department acts in a consultative capacity, and all in-patients are charted dentally.

The following is an analysis of the accidents dealt with in the Casualty Department of the Hospital :—

Street accidents .....	681
Home accidents .....	1,067
Sports accidents .....	275
Works accidents .....	1,137
School accidents .....	34
Park accidents .....	3
Road Traffic Act cases .....	69
Assault cases .....	16
Miscellaneous .....	227
	<hr/>
	3,509
	<hr/>

The grounds of both the Hospital and the Infirmary have been brought back to normal again. Five acres of land are under cultivation, providing vegetables for patients and staff. Great credit is due to the Head Gardener and his staff for the remarkable display of flowers.

We regret the passing away of Mr. Arthur Lloyd, our building foreman, after 16 years of service in this Hospital.

The appointment of assistant physicians and surgeons has made a great difference to the general working of the Hospital and the Infirmary. It has permitted an increase in the consultative work of the out-patient department and made possible some post-graduate teaching. Supernumary registrars holding Class III appointments under the demobilisation scheme and studying for further diplomas have been employed throughout the year and post-graduate refresher courses have been given to medical practitioners.

Many clinical and technical meetings were held during the year. Fortnightly meetings of the Selly Oak Hospital Medical Society and the usual clinical meetings of the clinical and pathological section of the Birmingham Branch of the British Medical Association, the University of Birmingham Medical Society and the Association of Clinical Pathologists have been the more important ones.

The following figures for the special departments give some indication of the work done :—

#### *Radiological Department*

Number of patients .....	9,210
Total examinations—Radiographic .....	21,084
Fluoroscopic .....	1,484
Films used .....	18,939

#### *Pathological Department*

Number of examinations .....	20,018
Number of autopsies .....	431

#### *Bio-Chemical Department*

Number of examinations .....	6,839
------------------------------	-------



*Physiotherapy Department*

Cases	.....	4,355
-------	-------	-------

*Remedial Exercise Department*

Cases	.....	1,549
-------	-------	-------

*Occupational Therapy Department*

Cases	.....	788
-------	-------	-----

*Dental Department*

Attendances	.....	1,497
-------------	-------	-------

*Operations*

Operations	.....	4,452
------------	-------	-------

**Selly Oak Infirmary**

Selly Oak Infirmary deals with chronic diseases of all ages and in two wards with acute medical diseases of children of the age of five years and under. The year has been one of steady progress in every direction. The staffing position has shown continuous improvement both as regards state registered nurses and assistant nurses. An assistant nurses' training school has been started and student assistant nurses are being regularly engaged. War damage repairs to all wards have been completed and re-decoration has been commenced. A night kitchen staff has been engaged, making it possible for all night nursing staff to have meals in the central dining room and producing a marked improvement in the patients' breakfasts.

The closing of wards enforced by staff shortages and continued during the year because of the very necessary ward repairs has augmented the existing deficiency in beds for the chronic sick. An extremely dangerous position has been reached where it is quite obvious that there are insufficient beds available in the City for the chronic sick. Throughout the year there has always been a waiting list of chronic sick requiring admission. Those waiting have been under constant review and priority of admission has been dependent entirely on their medical states and home conditions.

One wing of Springfield Nurses' Home has been allocated to the assistant nurses of the Infirmary. This has eased the accommodation problem considerably. But more resident staff accommodation still is urgently required. Too many of the nursing staff are non-resident for efficient and easy administration.

The wards equipped are now well staffed but overcrowded. As long as a waiting list persists it will not be possible to reduce the number of beds in wards. The chronic wards equipped during the year have been :—

- 1 Male surgical
- 2 Male medical
- 2 Female surgical
- 5 Female medical

As with last year some excellent results of surgery in the aged have been obtained in femoral fractures and in the urological section. On the medical side neurological, diabetic and rheumatic carditis cases are grouped together. The improved staffing of the Physiotherapy Department has made possible the starting of ward classes in the Infirmary with most beneficial results. Likewise remedial and diversional occupational therapy has been extended during the year.

The grounds of the Infirmary have been further opened up by the removal of the unnecessary walls and trees. Flower beds have been planted near the ward windows and the gardens generally improved.

Approximately 57% of the admissions to the Infirmary have been discharged home. This is the same as for last year. The total admissions for the year have been 1,930, and the average duration of stay of patients has been reduced from 96 days in 1946 to 90.47 days. The number of occupied beds has been as follows :—

(a) Average during the year	.....	.....	.....	.....	.....	.....	544
(b) Highest on 31.10.47	.....	.....	.....	.....	.....	.....	573
(c) Lowest on 4.7.47 and 26.7.47	.....	.....	.....	.....	.....	.....	521



# REPORT ON MATERNITY AND CHILD WELFARE

By DR. JEAN M. MACKINTOSH,

*Senior Assistant Medical Officer of Health (for Maternity and Child Welfare)*

## VITAL STATISTICS, 1947

*For the purpose of this Report the population given by the Registrar-General is used for the birth rate, but the figures used for the stillbirths, infant and maternal deaths are local figures.*

Births—Live Births, 23,935. (22,625 legitimate, 1,310 illegitimate).

There were 385 sets of twins and 2 sets of triplets born in 1947.

Population, Registrar General's estimate, 1,076,230.

Birth-rate, 22·2 per 1,000 population.

Illegitimate Birth Rate 5·5 per cent. of live births.

Infant deaths, 972. (888 legitimate, 84 illegitimate).

Infant Death Rate, 41 per 1,000 live births. (39 legitimate, 64 illegitimate).

Stillbirths, 577. (548 legitimate, 29 illegitimate).

Stillbirth Rate, 23·5 per 1,000 total births (live and still). (23·6 legitimate, 21·7 illegitimate).

Neo-natal Mortality, 20·9 per 1,000 live births. (500 deaths).

Maternal Mortality Rates in Childbirth (24 deaths),

including deaths after abortion, 0·98 per 1,000 total births (live and still), or 1·00 per 1,000 live births.

excluding deaths after abortion, 0·73 per 1,000 total births (live and still) or 0·75 per 1,000 live births.

## GENERAL COMMENTS

### Births

The birth rate fell from 22·5 in 1946 to 22·2 in 1947. The illegitimate birth rate per 1,000 live births was :—

<i>Illegitimate Births per 1,000 live births</i>				<i>Illegitimate Births per 1,000 live births</i>			
1940	.....	.....	36·8	1944	.....	.....	64·1
1941	.....	.....	48·2	1945	.....	.....	92·0
1942	.....	.....	54·3	1946	.....	.....	67·6
1943	.....	.....	57·6	1947	.....	.....	54·7

### Stillbirths

The stillbirth rate for 1947 shows a slight fall when compared with 1946, as shown in the following table :—

<i>Rate per 1,000 total births</i>				<i>Rate per 1,000 total births.</i>			
1940	.....	.....	33	1944	.....	.....	25
1941	.....	.....	29	1945	.....	.....	25
1942	.....	.....	28	1946	.....	.....	25
1943	.....	.....	27	1947	.....	.....	24

A special investigation into births taking place in and belonging to Birmingham has been made by Dr. Crosse. Births occurring outside the City and credited to Birmingham were excluded. The causes of stillbirths in this group of births is shown below :—

# STILLBIRTH RATE BY CAUSE OF DEATH, 1945—47

(Birmingham births occurring in Birmingham)

(1) <i>Deaths occurring before labour :</i>	1945	1946	1947
Known causes :			
Toxaemia .....	2.3	1.5	2.4
Syphilis .....	0.2	0.2	0.1
Rhesus incompatibility .....	0.3	0.4	0.4
Other maternal conditions .....	0.9	1.1	0.4
Separation of placenta .....	0.3	0.4	0.4
Foetal deformity .....	1.6	1.3	1.2
Other conditions .....	0.8	0.6	1.1
Unknown causes .....	3.6	4.3	4.0
All causes of death before labour .....	10.0	9.8	10.0
(2) <i>Deaths occurring during labour :</i>			
Ante-natal causes :			
Toxaemia .....	1.5	1.0	1.3
Syphilis .....	0.2	—	0.1
Rhesus incompatibility .....	—	0.1	0.1
Other maternal conditions .....	0.2	0.2	0.2
Separation of placenta .....	1.2	0.8	0.5
Foetal deformity .....	1.7	2.5	2.1
Intra-natal causes :			
Breech .....	1.9	3.3	3.0
Other difficult labours .....	4.0	3.6	3.2
Other intra-natal causes .....	2.2	2.7	2.0
Unknown causes .....	1.8	1.6	1.3
All causes of death during labour .....	14.7	15.8	13.8
Total Stillbirth Rate .....	24.7	25.6	23.8

The stillbirth rate among Birmingham births occurring in Birmingham reached a new low level during 1947, the reduction being entirely in the deaths occurring during labour. Deaths from the various causes fluctuate from year to year and it is impossible to give a definite cause for the reduction.

## Infant Mortality—Cause of Death

The impression to be gained from a study of the figures for 1947 and the trend over the past few years is that while the general standard of midwifery, including the ante-natal care of the mother and the care of the infant under 4 weeks shows slow but steady improvement, in spite of difficulties referred to later in this report, less satisfactory progress has been made in the control of the infections which are the main cause of infant death between 4 weeks and one year. The present state of overcrowding, with its almost inevitable effect of lowering hygienic standards makes the control of these infections still more difficult.

The infant mortality for 1947 was 41. The following table compares the Birmingham rates in recent years with those of England and Wales.

	<i>Bir- mingham.</i>	<i>England and Wales.</i>		<i>Bir- mingham.</i>	<i>England and Wales.</i>
1940	70	55	1944	42	46
1941	69	59	1945	49	46
1942	56	49	1946	40	43
1943	55	49	1947	41	41

While there has been only a slight increase in the total infant death rate in 1947, the death rate over one month has shown an increase from 17.9 in 1946 to 19.5 in 1947. The neo-natal death-rate, on the other hand, has fallen from 22.1 to 20.9.

The following table shows the main causes of infant death for the years 1944 to 1947 :—

	1944	1945	1946	1947
Total infant death rate .....	42	49	40	41
Respiratory disease .....	7.9	11.2	8.1	8.6
Diarrhoea and enteritis .....	5.8	7.3	6.4	7.0
Congenital malformations .....	5.7	5.7	4.8	5.1
Prematurity .....	9.3	10.5	7.8	5.9
Atrophy, debility, marasmus and atelectasis .....	2.6	1.8	2.4	2.6
Injury at birth .....	2.8	2.6	4.6	4.8
Other causes .....	7.9	9.9	5.9	6.6

From this it will be seen that whereas the deaths from respiratory disease, diarrhoea and enteritis have risen slightly the deaths from prematurity show a fall.

# INFANTILE MORTALITY DURING THE YEAR 1947

Deaths from stated causes in weeks and months under one year of age

Cause of Death	WEEKS				Total under One Month	MONTHS				Total Deaths under One Year
	0—	1—	2—	3—	Month	1—	3—	6—	9—	Year
Cerebro-spinal fever .....	—	—	—	—	—	—	1	1	1	3
Scarlet fever .....	—	—	—	—	—	—	—	—	—	—
Whooping cough .....	—	—	—	—	—	3	5	2	5	15
Diphtheria and croup .....	—	—	—	—	—	—	—	—	—	—
Tuberculosis of lungs .....	—	—	—	—	—	—	—	—	—	—
Tuberculous meningitis .....	—	—	—	—	—	—	—	1	—	1
Abdominal tuberculosis .....	—	—	—	—	—	—	—	—	—	—
Other tuberculous diseases .....	—	—	1	—	1	—	5	—	1	7
Syphilis .....	—	—	—	—	—	—	—	—	—	—
Influenza .....	—	—	—	—	—	1	2	—	—	3
Measles .....	—	—	—	—	—	1	—	1	2	4
Rickets .....	—	—	—	—	—	—	—	—	—	—
Meningitis (not tuberculous) .....	—	—	—	—	—	3	1	—	—	4
Convulsions .....	—	1	—	—	1	—	—	—	—	1
Otitis media & mastoiditis .....	1	—	—	1	2	7	6	5	2	22
Bronchitis .....	—	1	—	—	1	2	1	3	1	8
Pneumonia (all forms) .....	12	13	16	7	48	53	52	32	13	198
Gastritis .....	—	—	—	—	—	—	—	—	—	—
Diarrhoea, enteritis, etc. ....	—	3	2	5	10	58	54	33	12	167
Congenital malformations .....	55	9	7	4	75	23	16	6	3	123
Atrophy, debility and marasmus .....	4	2	5	—	11	—	—	—	—	11
Premature birth .....	124	7	2	4	137	4	—	—	—	141
Injury at birth .....	103	7	3	—	113	1	—	—	—	114
Atelectasis .....	48	4	—	—	52	—	—	—	—	52
Suffocation (overlying) .....	1	—	1	—	2	—	—	—	—	2
Neglect (under 3 months) .....	—	—	—	—	—	—	—	—	—	—
Other causes .....	33	7	3	4	47	16	12	16	5	96
All Causes .....	381	54	40	25	500	172	155	100	45	972

## Neo-natal Mortality

The neo-natal death rate (i.e. the rate below 4 weeks of age) for 1947 shows a fall compared with 1946 as the following table shows :—

	Rate per 1,000 live births		Rate per 1,000 live births
1940 .....	28·8	1944 .....	22·2
1941 .....	29·1	1945 .....	22·5
1942 .....	30·1	1946 .....	22·1
1943 .....	25·7	1947 .....	20·9

An investigation, similar to that carried out in relation to stillbirths, has been made into neo-natal deaths occurring in births belonging to and taking place in Birmingham. The result is shown in the following table :—

# NEO-NATAL DEATH RATE PER 1,000 LIVE BIRTHS

(Birmingham births occurring in Birmingham)

			1942	1943	1944	1945	1946	1947
<i>Ante-natal causes :</i>								
Toxaemia	.....	.....	2.3	1.3	1.4	1.5	1.3	1.1
Syphilis	.....	.....	2.3	0.2	0.1	—	—	0.1
Rhesus incompatibility	.....	.....		2.1	0.1	0.5	0.9	0.6
Other causes	.....	.....			1.3	1.5	1.8	1.9
<i>Intra-natal causes :</i>								
Breech presentation	.....	.....	1.8	0.7	0.5	0.5	0.8	0.7
Other causes	.....	.....	4.6	3.7	4.1	3.5	4.9	4.3
<i>Post-natal causes :</i>								
Infections	.....	.....	3.6	3.1	3.1	2.4	3.1	3.1
Other causes	.....	.....	1.8	2.0	1.5	2.0	1.4	1.6
Foetal abnormality	.....	.....	5.4	5.3	4.2	3.8	3.3	3.1
Prematurity only	.....	.....	8.2	7.2	5.8	5.9	4.7	4.0
<hr/>								
TOTAL	.....	.....	30.0	25.6	22.1	21.6	22.2	20.5

The death rates from toxæmia, foetal abnormality and prematurity continued to fall, while deaths from other causes fluctuate from year to year.

An analysis of the age at death for the same group of cases is shown below :—

# NEO-NATAL DEATHS, 1947. AGE AT DEATH

(Birmingham births occurring in Birmingham)

<i>Age at Death</i>	<i>Per cent. of deaths.</i>		<i>Per cent. of live births</i>	
Less than 24 hours .....	41.4	76.4	0.9	1.6
24—48 hours .....	10.5		0.2	
48 hours to 1 week .....	24.5		0.5	
1—2 weeks .....		10.9		0.2
2—3 weeks .....		7.4		0.2
3—4 weeks .....		5.3		0.1
<b>All ages to 4 weeks</b> .....		<b>100.0</b>		<b>2.1</b>



## Death Rate—4 weeks to 1 year.

The death rate in this age period shows a slight rise due mainly to a slight increase in the death rate from respiratory disease and gastro-enteritis.

<i>Death rate per 1,000 live births</i>				<i>Death rate per 1,000 live births</i>			
1940	.....	.....	41.2	1944	.....	.....	19.8
1941	.....	.....	39.9	1945	.....	.....	26.5
1942	.....	.....	25.9	1946	.....	.....	17.9
1943	.....	.....	29.3	1947	.....	.....	19.5

## Legitimacy

The illegitimate infant mortality rate per 1,000 illegitimate births was 64, whilst the corresponding rate for legitimate births was 39.

<i>Legitimate Infant Death rate</i>			<i>Illegitimate Infant Death rate</i>		
1940	70	69	1944	41	62
1941	69	75	1945	49	56
1942	54	83	1946	39	54
1943	56	52	1947	39	64

The main causes of death in illegitimate infants compared with legitimate infants is shown in the following table :—

				<i>Rate per 1,000</i>			
				<i>Legitimate live births</i>		<i>Illegitimate live births</i>	
				1946	1947	1946	1947
Infectious disease	.....	.....	.....	1.7	1.0	1.2	1.2
Tuberculosis	.....	.....	.....	0.4	0.3	0.6	—
Respiratory disease	.....	.....	.....	7.1	8.3	16.8	14.5
Diarrhoea and enteritis	.....	.....	.....	5.6	6.5	14.2	15.3
Congenital malformations	.....	.....	.....	4.8	5.1	1.9	5.3
Premature birth	.....	.....	.....	7.5	5.6	11.6	10.7
Atrophy, debility, marasmus and atelectasis	.....	.....	.....	2.1	2.5	4.5	3.8
Injury at birth	.....	.....	.....	4.5	4.7	3.2	5.3
Other causes	.....	.....	.....	4.3	5.1	12.2	7.6



## Infant Mortality in Wards

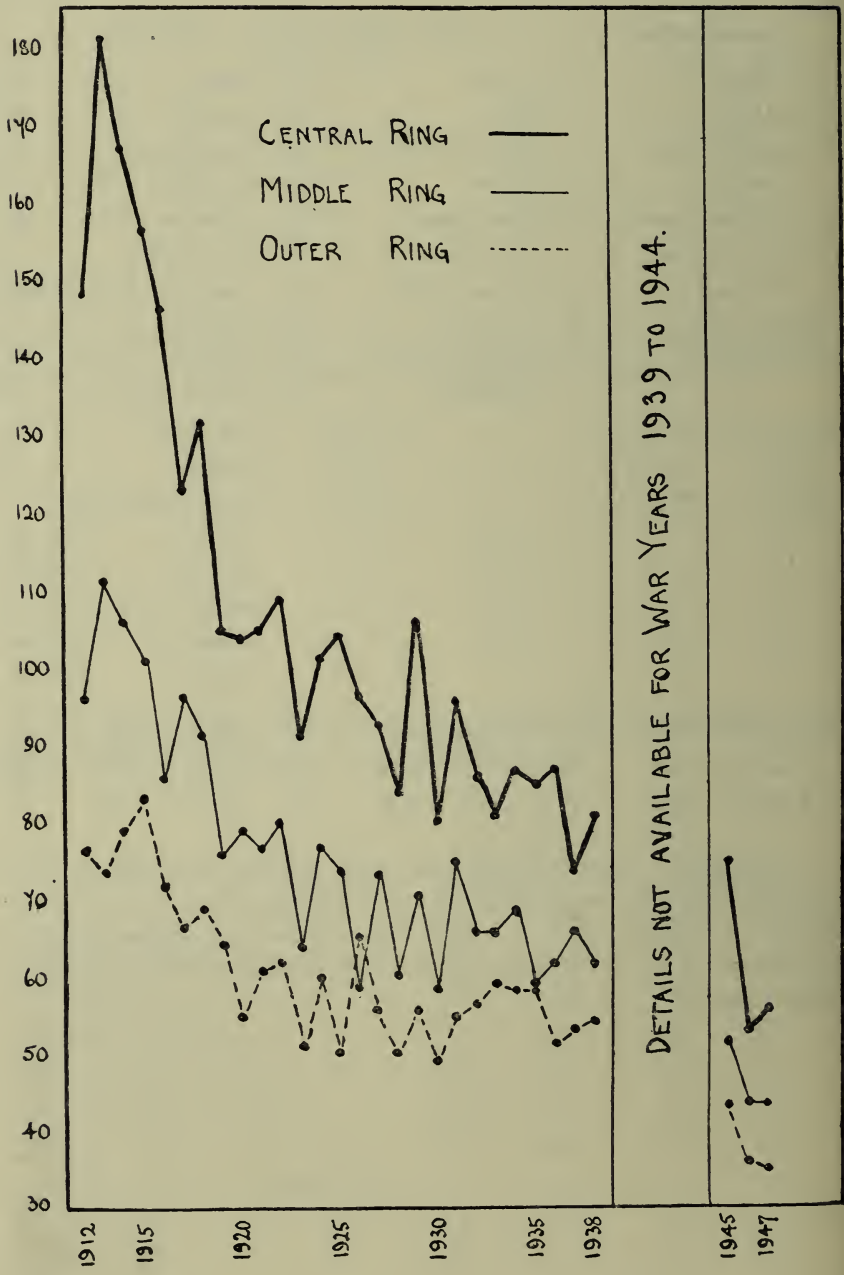
The appended table shows the infant mortality rate in each of the wards of the City in 1947. The average mortality in the groups of wards ten years ago is given for comparison.

<i>Central Wards</i>		<i>Middle Ring</i>		<i>Outer Ring</i>	
St. Paul's	52	Lozells	37	Soho	36
St. Mary's	52	Aston	48	Sandwell	29
Duddeston and		Washwood Heath	32	Handsworth	24
Nechells	57	Saltley	44	Perry Barr	34
St. Bartholomew's	42	Small Heath	34	Erdington	34
St. Martin's and		Sparkbrook	47	Gravelly Hill	48
Deritend	52	Balsall Heath	61	Bromford	44
Market Hall	87	Edgbaston	25	Stechford	34
Ladywood	62	Rotton Park	40	Yardley	49
		All Saints'	57	Acock's Green	30
				Hall Green	19
				Sparkhill	33
				Moseley and King's	
				Heath	28
				Selly Oak	35
				King's Norton	42
				Northfield	39
				Harborne	40
Average in 1947	56	Average in 1947	43	Average in 1947	35
Average in 1946	53	Average in 1946	44	Average in 1946	36
Average in 1936	87	Average in 1936	62	Average in 1936	52

The following diagram shows the fall in infantile mortality in each of the three groups of wards during the past 36 years. The rates for the war years are not shown as during that time, because of various reasons, the information at our disposal was not such as to enable us to arrive at accurate figures.

Infant Mortality Rates

BIRMINGHAM INFANT MORTALITY RATES IN GROUPS OF WARDS



# **Infant Death Rate and Stillbirth Rate according to Welfare Centre Districts**

The following table shows the infant death rate and still-birth rate according to welfare centre districts. Although the numbers involved are comparatively small, the trend is of interest.

			<i>Infant death rate</i>		<i>Stillbirth rate</i>	
			1946	1947	1946	1947
Tennal Road	.....	.....	17	47	16	7
King's Heath	.....	.....	21	29	21	16
Tower Hill	.....	.....	20	18	23	12
Stirchley	.....	.....	23	42	24	28
Bromford	.....	.....	34	42	15	25
Handsworth	.....	.....	35	36	15	20
Selly Oak	.....	.....	20	27	30	25
Acocks Green	.....	.....	32	27	20	26
Kingstanding	.....	.....	30	44	24	17
Northfield	.....	.....	36	39	19	26
Horrell Road	.....	.....	32	25	24	21
Washwood Heath	.....	.....	38	45	23	20
Hay Mills	.....	.....	36	37	25	22
Treaford Lane	.....	.....	34	28	28	15
Greet	.....	.....	36	28	29	27
Weoley Castle	.....	.....	47	37	21	15
Harborne	.....	.....	33	23	35	37
Carnegie	.....	.....	45	41	24	20
Erdington	.....	.....	41	27	28	28
Floodgate Street	.....	.....	35	40	34	20
Kettlehouse	.....	.....	42	38	27	40
Stratford Road	.....	.....	43	47	26	18
Lansdowne Street	.....	.....	50	40	20	24
Trinity Road	.....	.....	45	25	25	20
Sutton Street	.....	.....	45	54	27	37
Monument Road	.....	.....	50	48	24	30
Yardley Wood	.....	.....	39	27	35	16
Lancaster Street	.....	.....	53	48	25	20
Hope Street	.....	.....	55	50	26	27
Lea Hall	.....	.....	61	39	20	16
Langley Road	.....	.....	50	40	32	22
Irving Street	.....	.....	54	63	30	15

For the purpose of comparison of the districts with the lowest and highest infant death and stillbirth rates, the five lowest have been grouped together (Group I) and the five highest (Group II). The following table brings out the salient differences :—

GROUP I								
<i>Total Live Births.</i>	<i>Infant Mortality Rate.</i>	<i>Neo-natal Death-Rate.</i>	<i>Still-birth Rate.</i>	<i>Respiratory Death-Rate.</i>	<i>Diarrhoea and Enteritis Death Rate.</i>	<i>Prematurity Death-Rate.</i>	<i>Birth Injury Death-Rate.</i>	<i>Congenital Malformations.</i>
4,064	25	14.5	15.7	6.6	2.7	3.7	3.9	4.2
GROUP II								
4,221	50	21.3	30.3	10.9	12.6	6.2	4.0	6.6

## Maternal Mortality in Childbirth

The deaths of women classed to pregnancy and child-bearing in Birmingham during 1947 gave a maternal mortality rate of 0·98 per thousand live and still births. If deaths from abortion are excluded the rate is 0·73 per thousand live and still births. The equivalent rates based on live births only are 1·00 per 1,000 live births, including abortion and 0·75 excluding abortion.

Rate per 1,000 live and stillbirths (excluding abortions) England and					Rate per 1,000 live and stillbirths (excluding abortions) England and				
Birmingham					Birmingham				
Wales					Wales				
1941	.....	.....	.....	1·95	2·23	1945	.....	1·21	1·46
1942	.....	.....	.....	1·82	2·01	1946	.....	0·64	1·24
1943	.....	.....	.....	1·35	1·84	1947	.....	0·73	1·01
1944	.....	.....	.....	0·95	1·53				

At the request of the Ministry of Health, a medical enquiry has been made in the case of every maternal death in childbirth during each year since 1929. The opinion so obtained, direct from doctors, midwives and hospitals, makes it possible to classify the deaths more accurately than from the consideration of death certificates only.

A.	Deaths due to pregnancy and childbirth	.....	.....	.....	.....	25
B.	Deaths due to associated conditions	.....	.....	.....	.....	13
TOTAL						38

### A. Deaths due to Pregnancy and Childbirth

1.	Not associated with a notifiable birth	.....	.....	.....	.....	6
(a)	Septic abortion	.....	.....	.....	.....	4
(b)	Toxaemia	.....	.....	.....	.....	1
(c)	Eclampsia	.....	.....	.....	.....	1
2.	Associated with a notifiable birth	.....	.....	.....	.....	19
(a)	Sepsis	.....	.....	.....	.....	4
(b)	Toxaemia :					
	Eclamptic	.....	.....	.....	.....	1
	Non-eclamptic	.....	.....	.....	.....	3
(c)	Haemorrhage :					
	Post Partum	.....	.....	.....	.....	1
	Cerebral	.....	.....	.....	.....	1
(d)	Difficult and abnormal labour					
	Severe Shock	.....	.....	.....	.....	1
	Paralytic ileus after Caesarean section	.....	.....	.....	.....	2
(e)	Thrombophlebitis and embolism	.....	.....	.....	.....	6

B.	Deaths due to associated causes	.....	.....	.....	.....	13
	Tuberculosis	.....	.....	.....	.....	6
	Heart disease	.....	.....	.....	.....	4
	Chronic nephritis	.....	.....	.....	.....	2
	Cancer of colon	.....	.....	.....	.....	1

## Estimation of Avoidable Factor

A review of the circumstances of every case of maternal death makes it possible to estimate whether or not there was any avoidable factor and, in this respect, the cases have been classified according to the following table, which includes all maternal deaths except those due to abortion and ectopic gestation.

TABLE I.				
	<i>Sepsis</i>	<i>Toxaemia</i>	<i>Other Obstetric Causes</i>	<i>Associated Conditions</i>
	(4)	(4)	(13)	(13)
Lack or inadequacy of ante-natal care .....	0	1	3	0
Lack or inadequacy of obstetric facilities .....	0	0	0	0
Lack or inadequacy of specialist or hospital treatment .....	1	0	1	0
Lack of co-operation from patient or her friends .....	0	0	0	1
Safety only by avoidance or termination of pregnancy	0	3	0	9
No avoidable factor .....	3	0	9	3
Total number of cases in which one or more avoidable factors were present .....				11
Total number of cases in which death apparently was inevitable .....				15

## Comparison with previous Years

A comparison of the death rate figures in the principal groups with those of previous years is shown hereunder :—

Death-rate per 1,000 Live and Stillbirths.						Total	Due to Associated Conditions.
<i>Abortion.</i>	<i>Sepsis.</i>	<i>Toxaemia.</i>	<i>Haemorrhage</i>	<i>Other Causes.</i>			
1942 .....	0·52	0·57	0·68	0·16	0·41	2·34	0·89
1943 .....	0·34	0·43	0·53	0·19	0·20	1·69	0·34
1944 .....	0·39	0·17	0·35	0·09	0·34	1·34	0·74
1945 .....	0·29	0·29	0·49	—	0·34	1·41	0·44
1946 .....	0·21	0·04	0·26	—	0·34	0·85	0·47
1947 .....	0·16	0·16	0·16	0·08	0·40	0·96	0·52



The following table gives the age grouping of maternal deaths since 1939 :—

		<i>Under</i> 20 years	20-25 yrs.	25-30 yrs.	30-35 yrs.	35-40 yrs.	40 years and over
1939	.....	2	4	14	21	7	4
1940	.....	1	10	14	8	7	5
1941	.....	0	7	12	8	20	5
1942	.....	3	13	15	17	12	2
1943	.....	2	9	8	11	7	7
1944	.....	1	12	10	14	8	4
1945	.....	0	5	8	10	10	2
1946	.....	2	4	4	6	12	3
1947	.....	1	6	7	7	12	5
		12	70	92	102	95	37

## PREMATURITY

Premature births (babies with a birthweight of 5½ lbs. or less), born to Birmingham residents were investigated by Dr. Crosse during 1947.

This investigation was made in order to analyse the primary factors leading eventually to stillbirth, or to the infant death among premature infants.

Of the total of 1,920 premature births, 272 were stillborn. The 1,648 live births showed the following weight distribution :—

Up to 2 lbs.	43 babies = 2.6% of the total
2—3 lbs.	114 babies = 6.9% „ „
3—4 lbs.	204 babies = 12.4% „ „
4—5 lbs.	600 babies = 36.4% „ „
5—5½ lbs.	687 babies = 41.7% „ „

## Incidence

Premature babies formed 7.9 per cent. of all births, live and still, and 6.9 of live births only. They formed a higher proportion of the stillbirths than usual. The incidence of premature births in the various categories of births and deaths is given below for the years 1943/47.

*Incidence of premature birth as a percentage of :*

	1943	1944	1945	1946	1947
Total birth rate	6.0	6.3	7.2	7.9	7.9
Stillbirth rate	41.4	44.2	44.8	41.3	47.1
Live birth rate	5.4	5.4	6.2	7.1	6.9
Neo-natal death rate	58.7	59.3	59.2	54.2	56.9
Death rate 1—12 months	—	—	—	—	16.5
Infant mortality rate	—	—	—	—	34.4

The percentage relating to the death rate 1-12 months and the total infant mortality rate are not available for the years 1943-46.

## Mortality

The mortality rates from the different causes of death are given below for (1) the premature births, and (2) babies weighing over  $5\frac{1}{2}$  lbs. at birth, the latter being added for comparison so that the true hazard of prematurity can be realised.

## Stillbirths

### STILLBIRTH RATE BY CAUSE OF DEATH FOR PREMATURE BIRTHS AND BABIES OVER $5\frac{1}{2}$ LBS.

<i>Causes of death</i>	<i>Premature deaths (per 1,000 Premature births, live and still)</i>	<i>Deaths of babies over <math>5\frac{1}{2}</math> lbs. (per 1,000 births over <math>5\frac{1}{2}</math> lbs. live and still)</i>
<i>Ante-natal deaths :</i>		
(a) Known causes :		
Toxaemia .....	21.9	0.7
Syphilis .....	1.6	—
Rhesus incompatibility .....	3.1	0.1
Other maternal conditions .....	2.6	0.3
Separation of placenta .....	3.6	0.2
Foetal deformity .....	10.4	0.4
Other conditions .....	7.3	0.6
(b) Unknown .....	32.3	1.5
Total ante-natal deaths .....	82.8	3.8
<i>Intra-natal deaths :</i>		
(a) Ante-natal causes :		
Toxaemia .....	9.9	} 0.5 0.1
Syphilis .....	—	
Rhesus incompatibility .....	—	
Other maternal conditions .....	1.6	0.1
Separation of placenta .....	3.6	0.2
Foetal deformity .....	17.2	0.8
(b) Intra-natal causes :		
Breech presentation .....	12.0	2.5
Difficult labour .....	3.1	3.2
Other .....	6.8	1.4
(c) Unknown .....	4.7	1.1
Total intra-natal deaths .....	58.9	9.9
Total stillbirth rate .....	141.7	13.7

The greater proportion of stillbirths occurring before the onset of labour are classed as premature births because they weigh  $5\frac{1}{2}$  lbs. or less. This is not, however, a true picture of the cause of stillbirth in these cases which is, in fact, due to the ante-natal causes shown in the table above.

On the other hand, the increased risk of death during labour from intranatal causes is a result of the prematurity, due to a greater chance of breech presentation, more risk of cord complications and a greater susceptibility to intracranial birth injury.

## Infant Mortality Rate

For 1947 the infant mortality rate was 214 per 1,000 premature births and 27 per 1,000 babies born weighing over 5½ lbs.

## Neo-natal Mortality

### NEO-NATAL DEATH RATES FOR PREMATURE BABIES AND BABIES OVER 5½ LBS.

<i>Cause of death</i>	<i>Premature deaths (per 1,000 live premature births)</i>	<i>Deaths of babies over 5½ lbs. (per 1,000 live births over 5½ lbs.)</i>
Ante-natal causes :		
Toxaemia .....	15.1	0.1
Syphilis .....	—	0.1
Rhesus incompatibility .....	3.6	0.4
Other .....	25.4	0.2
Foetal deformity .....	13.9	2.3
Intra-natal causes :		
Breech .....	6.6	0.2
Difficult labour .....	1.2	0.5
Other causes .....	27.8	2.0
Post-natal causes :		
Infection .....	11.5	2.4
Other .....	5.4	1.3
Prematurity only .....	57.6	—
Total neo-natal death rates .....	168.1	9.5

As in the case of stillbirths, the greater proportion of neo-natal deaths are classed as premature births because they weigh 5½ lbs. or less but the deaths occurring among premature infants and attributed to ante-natal causes in the table above are, in fact, due to these causes and not to the prematurity as such, which is merely the result of these causes. On the other hand, for the same reason as in the case of stillbirths, the prematurity itself is the direct cause of the greatly increased risk of death from intranatal causes, post-natal causes and prematurity only. During 1947, the risk of neo-natal death was nearly 18 times greater for the premature births than for the baby weighing over 5½ lbs. at birth.

It is of interest to note the age at death of premature babies and infants over 5½ lbs. who died during the first 4 weeks of life :—

<i>Age at death</i>	<i>Premature babies</i>		<i>Babies over 5½ lbs.</i>	
	<i>Per cent. of deaths</i>	<i>Per cent. of live births</i>	<i>Per cent. of deaths</i>	<i>Per cent. of live births</i>
Less than 24 hours	50.9	8.6	28.7	0.3
24—48 hours .....	12.6	2.2	7.7	0.1
48 hours to 1 week	22.4	3.7	27.3	0.2
	85.9		63.7	
	14.5		0.6	
1—2 weeks .....	6.1	1.0	17.2	0.2
2—3 weeks .....	5.1	0.8	10.5	0.1
3—4 weeks .....	2.9	0.5	8.6	0.1
All ages to 4 weeks	100.0	16.8	100.0	1.0

No less than 50% of the premature infant deaths occur during the first 24 hours after birth and 86% during the first week ; while the corresponding figures for babies weighing over 5½ lbs. at birth are 29% and 64%.

The influence of specialised hospital accommodation on the neo-natal death rate of premature infants is shown in the following table :—

#### NEO-NATAL DEATH RATES (per cent) BIRMINGHAM, 1947.

<i>Place of birth and of treatment</i>	<i>Up to 2 lbs.</i>	<i>2—3 lbs.</i>	<i>3—4 lbs.</i>	<i>4—5 lbs.</i>	<i>5—5½ lbs.</i>	<i>All weights to 5½ lbs.</i>
*Born and treated in " Sorrento " .....	2(2)	8(5)	30(8)	72(4)	71(2)	183(21)
(Premature Unit) .....	deaths	deaths	deaths	deaths	deaths	deaths
(183 babies, 71 over 5 lbs.)	100%	62.5%	27.0%	5.5%	2.8%	11.4%
Born and treated in other hospitals .....	25(22)	72(53)	94(38)	277(24)	348(28)	816(165)
(816 babies, 348 over 5lbs.)	88.0%	73.6%	40.4%	8.7%	8.0%	20.2%
Born at home, 487 treated at home, 110 at Sorrento and 52 at other hospitals	16(16)	34(23)	80(23)	251(18)	268(11)	649(91)
(649 babies, 268 over 5 lbs.)	100%	67.7%	27.6%	7.2%	4.1%	14.0%

\*For 1,256 infants born and treated in Sorrento from 1931-46, the neo-natal mortality rates were as follows :—

Up to 2 lbs. ....	100%	4—5 lbs. ....	9.5%
2—3 lbs. ....	70%	5—5½ lbs. ....	1.3%
3—4 lbs. ....	30%	Total for the whole group ....	11.4%

## Death rate from 1-12 months

Deaths over 4 weeks have also been divided into premature babies and those over 5½ lbs. at birth ; and the following table shows the relative risks of death from each important cause for the two groups.

### DEATHS OVER 4 WEEKS AND UNDER 1 YEAR, 1947

<i>Cause of death</i>	<i>Premature babies (Rate per 1,000 Premature live births)</i>	<i>Babies over 5½ lbs. (Rate per 1,000 live births over 5½ lbs.)</i>
Infections :		
Respiratory .....	15·2	7·0
Digestive .....	14·0	4·5
Other .....	7·8	3·0
Foetal deformity .....	7·3	1·9
Prematurity only .....	0·6	—
Other causes .....	1·2	1·1
Total death rate 4 weeks—1 year .....	46·1	17·5

This table shows that the relatively high death rate from infections continues in premature infants even after the first 4 weeks of life. The high death rate from deformities in premature infants is due to the high incidence of prematurity in cases of deformity ; the prematurity being the result, and not the cause, of the deformity.

## The Present Situation in Birmingham

The foetal, neo-natal and infant mortality rates could all be reduced (1) if the incidence of prematurity could be reduced, and (2) if more premature infants could be saved. The cause of the prematurity is obscure in about 50% of cases ; in the other 50% abnormalities of pregnancy play a large part. Good ante-natal care is therefore regarded as the sheet anchor in the reduction of the incidence of prematurity. For this reason more ante-natal beds are required in Birmingham.

For the reduction of mortality in the premature baby, specialised nursing care and hospital accommodation are required. In Birmingham, a Premature Unit was set up in 1931, but the number of cots for premature babies is inadequate for the number born and more are to be provided shortly.

In order to improve the standard of the care of the premature baby in its own home, district midwives are trained in the care of premature babies and premature cots, clothing and equipment are provided for their use by the local authority.



The following table shows the history of the 1,560 premature babies born alive in Birmingham during 1946 and reaching the age of one year during 1947 :—

FOLLOW-UP TO 1 YEAR. 1,560 PREMATURE BABIES BORN IN 1946

		<i>Up to 2 lbs.</i>	<i>2—3 lbs.</i>	<i>3—4 lbs.</i>	<i>4—5 lbs.</i>	<i>5—5½ lbs.</i>	<i>All weights to 5½ lbs.</i>
(1)	Births .....	42	93	227	555	643	1,560
.....	Per cent. of total births .....	2.7	6.0	14.5	35.6	41.2	100.0
(2)	Neo-natal deaths .....	42	72	80	54	22	270
	Per cent. of births.....	100.0	77.4	35.2	9.7	3.4	17.3
(3)	Alive at 4 weeks .....	—	21	147	501	621	1,290
(4)	Left City .....	—	1	7	28	39	75
(5)	Untraced at 1 year .....	—	—	1	17	22	40
(6)	Traced to death or 1 year .....	—	20	139	456	560	1,175
(7)	Died after 4 weeks and before 1 year .....	—	1	16	31	20	68
	Per cent. of 6 .....	—	5.0	11.5	6.8	3.6	5.8
(8)	Alive at 1 year .....	—	19	123	425	540	1,107
(9)	Abnormalities found in children alive at 1 year .....	— 1 Mongol 1 eye defect	2 heart defects 1 talipes	2 Mongols 1 eye defect 4 men- tally sub- normal	1 deaf mute 1 hydro- cephalic 2 eye defects 2 men- tally sub-normal	11 Mental defects 2 physic- al defects	

### Puerperal Pyrexia and Puerperal Sepsis

The following table shows the number of cases of puerperal pyrexia during 1947 and the preceding 4 years.

The out-of-city cases are those not normally resident in Birmingham, but coming into the City for confinement.

	1943.	1944.	1945.	1946.	1947.
Total puerperal pyrexia cases	396	352	338	310	244
Out-of-City cases .....	25	20	32	13	38
Birmingham cases .....	317	332	306	297	206

Detailed information is obtained in nearly all the Birmingham cases, and is shown in the following tables:—

	1943	1944	1945	1946	1947
Number of cases investigated	371	332	306	297	193
Primiparae .....	168	156	152	171	104
Multiparae .....	123	128	117	96	69
Parity not stated .....	80	48	37	30	20
Abortions .....	55	26	28	21	13
Transferred to hospital for treatment .....	127	111	84	85	69
Already in hospital .....	153	117	117	127	75
District nurse .....	73	67	66	51	46
Midwife or relative .....	4	6	10	10	6
Not known .....	10	—	—	1	6
Consultant called in .....	4	5	1	2	—
Deaths: (a) Childbirth .....	5	5	4	2	3
(b) Abortion .....	1	—	1	1	—

The ante-natal care in the 206 Birmingham cases of puerperal pyrexia in 1947 was as follows:—

Sufficient ante-natal care .....	166
Insufficient ante-natal care .....	10
Not stated .....	17
Abortions .....	13
	<hr/>
	206

The 206 Birmingham cases of puerperal pyrexia have been analysed as far as possible, with a view to discovering the cause of the pyrexia.

The suggested causes are as follows:—

(1) <i>Due to infection of the genital tract</i> .....	100 (48.5%)
Uterine infection	42
Subinvolution .....	16
Septic abortion .....	13
Retained products	15
Perineum infection	11
Puerperal sepsis.....	2
Interference .....	1
(2) <i>Due to extra-genital causes</i> .....	99 (48.1%)
Urinary .....	9
Pneumonia .....	4
Respiratory .....	24
Mastitis .....	20
Measles .....	1
Influenza .....	3
Mumps .....	1
Chill .....	1
Anaemia .....	2
Toxaemia .....	1
Psychological .....	1
Reaction to overwork	1
Colitis .....	1
Pleurisy .....	1
Gastro-enteritis	1
Thrombo-phlebitis	
of leg .....	2
Tonsillitis .....	1
T.B. ....	5
Pyelitis .....	9
Bronchitis .....	2
Pulmonary embolism	1
White leg .....	5
Post operation	
reaction .....	2
Cardiac failure (died)	1
(3) <i>Causes not known</i> .....	7 (3.4%)

### Ophthalmia Neonatorum

During the year there were 815 cases of ophthalmia neonatorum notified, of which 13 were treated in hospital. Only a very small proportion of these were due to gonococcal infection, and no impairment of vision occurred in any case reported to the department.

### Pemphigus

Number of cases of pemphigus which occurred on the district during									
1947	.....	.....	.....	.....	.....	.....	.....	.....	14
Admitted to hospital	.....	.....	.....	.....	.....	.....	.....	.....	2
Nursed at home :—									
(a) by district nurse	.....	.....	.....	.....	.....	.....	.....	.....	5
(b) by relative	.....	.....	.....	.....	.....	.....	.....	.....	7
Number of cases of pemphigus which occurred in institutions during									
1947	.....	.....	.....	.....	.....	.....	.....	.....	1

All cases of pemphigus which occurred during 1947 recovered.

### MATERNITY SERVICES

The births occurring in the City during the year were as follows :—

	<i>Live</i>	<i>Still</i>
	<i>Births</i>	<i>Births</i>
Births notified	24,909	702
Failed to notify	215	—
	<hr/>	<hr/>
	25,124	702
	<hr/>	<hr/>

Total : 25,826\*

\*This figure represents 25,437 confinements and does not include births to Birmingham residents which occurred outside the City, nor births in St. Chad's Hospital which only admits persons from outside the City boundary ; but it does include the births to a number of women whose residence was outside the City. It includes 385 sets of twins (338 sets both living, 40 sets 1 living and 1 stillborn, 7 sets both stillborn), and 2 sets of triplets (1 all living and 1 with two living and 1 stillborn).

This figure shows an increase of approximately 1,500 births over the number dealt with in 1946, yet the total number of midwives notifying their intention to practise in the City fell by 33. The fall was greatest among the institutional midwives where 29 fewer notified their intention to practise, yet they had to deal with 807 more confinements. On the other hand, in the domiciliary service there was only a fall of 4 midwives, but they had to deal with 753 more confinements than in 1946. In addition, the domiciliary service had to carry a heavier load, as owing to the pressure on maternity beds in institutions, it was found necessary at certain periods to discharge maternity cases before the tenth day after delivery. In these cases, daily visiting was carried out by the City midwives until the fourteenth day, 2,957 such visits being paid to mothers.

Medical practitioners were engaged in 18·1% of the cases and were called in to assist at the confinement in 4·5%. Midwives alone attended 76·1% of confinements in patients' homes. 52·4% of all the confinements in the City occurred in institutions. These figures are set out in detail as follows :—

#### DOMICILIARY CONFINEMENTS

City Midwife booked for confinement (doctor called in for actual delivery by midwife in 582 cases) .....	9,735
Doctor booked for confinement .....	2,214
Delivered by ambulance nurse .....	160
Delivered by former Queen's Hospital district midwives .....	116
	<hr/>
	12,225
	<hr/>

#### INSTITUTIONAL CONFINEMENTS

Total confinements in Nursing Homes .....	1,985
"    "    "    General Hospital .....	63
"    "    "    Hope Lodge .....	—
"    "    "    42, Park Hill .....	39
"    "    "    H.M. Prison .....	8
"    "    "    Queen Elizabeth Hospital .....	474
"    "    "    Sorrento Maternity Home .....	1,925
"    "    "    Heathfield Road Maternity Home .....	991
"    "    "    Erdington Maternity Home .....	908
"    "    "    Lordswood Maternity Home .....	851
"    "    "    Maternity Hospital .....	2,042
"    "    "    Women's Hospital .....	1
"    "    "    Dudley Road Hospital .....	3,204
"    "    "    Selly Oak Hospital .....	822
"    "    "    Little Bromwich Hospital .....	2
	<hr/>
Total confinements in Institutions .....	13,315
	<hr/>
Total .....	25,540
	<hr/>

#### DOMICILIARY MIDWIFERY SERVICE

At the end of 1947, 124 City midwives were in practice, 13 midwives were employed as maternity nurses and 24 independent midwives were in practice, including 4 who resided outside the City. Two midwives attached to the former Queen's Hospital worked on the district. The Queen's Hospital district was taken over by the City Service in October, 1947. Fourteen ambulance midwives were employed by the Birmingham Hospital Contributory Association.

During the year there were 12,225 women delivered in their own homes, 11,368 by City midwives, 116 by midwives attached to the former Queen's Hospital and 581 by private midwives. There were 160 confinements attended in patients' homes or in ambulances by ambulance midwives.

## City Midwives

During the year, City midwives attended 11,368 cases and acted as maternity nurses in 1,918 of these cases.

The average number of deliveries for each midwife per month was 7.5 or 90 cases in the year. This makes no allowance for 198 weeks lost by sick leave. There have been 28 new appointments to the service and 19 resignations during the year.

## Supervision of Midwives

During the year 353 midwives notified their intention to practise in the City. Of these, 4 resided outside the City and therefore did not come under routine inspection. Of the total number of 353 midwives, 169 were institutional and 184 domiciliary.

Midwives sent for medical aid in 3,809 cases, in 2,612 instances for treatment for the mother and in 1,197 for the child.

## Reasons for sending for medical help

MOTHERS		CHILDREN	
Delayed labour .....	544	Ophthalmia .....	839
Laceration of perineum .....	1,228	Prematurity .....	55
Haemorrhage .....	167	Convulsions .....	2
Adherent placenta .....	63	Jaundice .....	20
Abnormal presentation .....	107	Skin eruption .....	47
Abortion or miscarriage .....	33	Deformity .....	32
Rise of temperature .....	130	Other causes .....	202
Other causes .....	340		
	<hr/>		<hr/>
	2,612		1,197
	<hr/>		<hr/>

Midwives were temporarily suspended for the following reasons:—

Septic conditions .....	11	Skin conditions .....	2
Accidents .....	6	Bronchitis .....	1
Influenza .....	6	Other causes .....	27
Colds .....	4		

The following visits were paid during the year by the Supervisors of Midwives:—

Routine visits to midwives .....	114
Special visits to midwives .....	269
Visits to stillbirths .....	57
Visits after neo-natal deaths .....	79
Nursings and deliveries supervised .....	80
Visits to ophthalmia neonatorum cases .....	1,575
Visits to puerperal sepsis cases .....	190
Other visits .....	647
Unsuccessful visits .....	584
Number of interviews with midwives .....	1,116
Hospital interviews (maternity bookings) .....	6,270
Interviews <i>re</i> dockets for sheets .....	5,974



## Emergency Maternity Service

This is a service whereby a doctor and a nurse from the Maternity Hospital proceed to the patient's home by ambulance with equipment for the treatment of shock and hæmorrhage.

In addition to this, one of a panel of consultants can be summoned by the general practitioner if he considers this advisable. This service was used in 83 maternity cases in the City, the reasons being as follows :—

Post partum hæmorrhage .....	27
Post partum hæmorrhage and retained placenta .....	43
Abortion .....	6
Severe obstetric shock .....	4
Ante-partum hæmorrhage .....	1
Haematoma .....	1
Obstructed labour and cleidotomy .....	1
	<hr/>
	83

Eleven of these cases were transferred to hospital for further treatment.

## Gas and Air Analgesia

The number of municipal midwives who have their gas and air certificate is now 106. Sixty-one sets of gas and air apparatus are in use in the service. During 1947, 324 patients received gas and air anæsthetic administered by a municipal midwife in the domiciliary practice.

## Premature Baby Equipment

Sixty premature baby outfits are available at midwives' houses. The full equipment has been loaned out to patients in 16 instances and part equipment has been loaned in 21 instances.

## Training of Midwives

The City Hospitals (Dudley Road and Selly Oak) and the City Maternity Home, 15, Wake Green Road, Moseley, together with the Birmingham Maternity Hospital, are recognised for the first period of training ; while the City Maternity Home, Heathfield Road, Handsworth and Lordswood Maternity Home, Harborne, are recognised for the second period of training.

## District Training

During the year 1947, 20 teacher midwives were taking pupils on the district. Four midwives were approved as teachers during the year and two teachers resigned.

	<i>Pupils trained for the</i>		
	<i>Central Midwives' Board</i>		<i>Obtained</i>
	<i>Certificate</i>	<i>Certificate</i>	<i>Gas and Air</i>
	<i>Part I</i>	<i>Part II</i>	<i>Certificate</i>
Selly Oak Hospital .....	39	—	12
Dudley Road Hospital .....	55	—	5
Birmingham Maternity Hospital .....	86	—	—
Sorrento Maternity Home .....	31	—	14
Heathfield Road Maternity Home .....	—	77	40
Lordswood Maternity Home .....	—	35	12

## INSTITUTIONAL MIDWIFERY

There are six maternity units under the control of the City Council. The work undertaken at Dudley Road Hospital is referred to on page 12 and that at Selly Oak on page 19

### **City Maternity Home (Sorrento), Wake Green Road, Moseley.** (112 Beds).

This Home is a training school for pupil midwives. (First part of training).

Including the annexe in Greenhill Road, this Institution has 64 lying-in beds, 30 ante-natal beds and a premature baby unit with cots for 14 babies and beds for 4 mothers.

The number of deliveries in the Home during 1947 was 1,935 ; of these, 1,689 were booked and 236 unbooked cases. Sixty-two per cent. were primigravidæ. There were five cases of notifiable pyrexia. Two mothers died ; one from pulmonary embolism and the other from tuberculosis.

Of the 241 babies admitted to the premature baby unit, 60% were unbooked cases admitted after delivery in their own homes. The mortality rate for all prematures born in the Home, whether treated in the special unit or not, was 11·4%.

The mortality rate of these 241 babies was 22%, which was low considering the very great proportion of small infants (the larger ones being treated at home).

### **City Maternity Home, Heathfield Road, Handsworth.** (43 Beds).

This Home is a training school for midwives. (Second part of training).

Including the annexe at Bourne House, the Institution has 33 lying-in beds and 10 ante-natal beds.

The number of deliveries in the Home during 1947 was 1,001 ; of these 863 were booked and 138 unbooked cases. Seventy per cent. were primigravidæ. Nine cases of notifiable pyrexia occurred. There were no maternal deaths.

### **City Maternity Home, Lordswood Road, Harborne.** (27 Beds).

This Home is primarily intended for women who have had a previous child but require institutional treatment because of home difficulties. It is a training school for pupil midwives (second part of training).

Ante-natal and post-natal clinics in connection with this Home are held at the Harborne Welfare Centre in Wentworth Road. There are no ante-natal beds, but abnormal ante-natal cases are dealt with by either the Wake Green Road or Heathfield Road Homes.

During 1947 there were 877 deliveries. These were all booked cases and eighty per cent. were multigravidæ. Five cases of notifiable pyrexia occurred and there were two maternal deaths, one from pulmonary embolism and the other from cardiac failure (rheumatic endocarditis and myocarditis).

**City Maternity Home, Highcroft Hall, Erdington. (32 beds).**

This Home is also primarily intended for multigravidæ with home difficulties.

Ante-natal and post-natal clinics in connection with this Home are held at the Erdington Welfare Centre in Marsh Lane.

During 1947, 933 women have been delivered, sixty-nine per cent. being multigravidæ. Fourteen cases of notifiable pyrexia occurred. There were no maternal deaths.

**MOTHERS**

	<i>Sorrento</i>	<i>Heathfield</i>	<i>Lordswood</i>	<i>Erdington</i>
No. of confinements	1,925	1,001	877	933
Booked .....	1,689	863	877	933
Unbooked .....	236	138	—	—
Primigravidæ .....	1,202	709	179	192
Multigravidæ .....	723	292	689	741
Forceps .....	84	52	23	35
Notifiable pyrexia	5	9	5	14
Maternal deaths	2	—	2	—

**INFANTS**

	<i>Sorrento</i>	<i>Heathfield</i>	<i>Lordswood</i>	<i>Erdington</i>
Births .....	1,957	1,023	890	941
Stillbirths .....	68	33	22	9
Booked .....	36	24	22	9
Unbooked .....	32	9	—	—
Deaths under 10 days .....	36	17	7	6
Booked .....	27	14	7	6
Unbooked .....	9	3	—	—
Premature births (5½ lbs. or less)	196	104	26	38
Booked .....	138	76	26	38
Unbooked .....	58	28	—	—
Stillborn .....	23	14	9	1
Died .....	20 = 11·5%	10 = 11·1%	2 = 11·8%	3 = 8·1%
	of those born alive.			

**Feeding :**

Breast only .....	1,616	872	806	890
Complemented .....	192	56	46	32
Artificial .....	45	46	9	4

## Ante-natal

### CLINICS.

	<i>Sorrento</i>	<i>Heathfield</i>	<i>Lordswood</i>	<i>Erdington</i>
Doctors' Clinics :				
New patients .....	1,726	1,153	943	927
Re-visits .....	7,958	2,917	3,095	2,331
Consultation only .....	1,396	419	—	—
Midwives' Clinics .....	633	1,549	483	—

## Post-natal

New patients .....	1,191	465	419	190
Re-visits .....	428	455	139	12
Consultation only .....	129	85	—	—

## Laboratory Examinations

One whole-time bio-chemist is employed to undertake work in connection with the four maternity homes. The following is an analysis of the work done :—

	<i>No. of examinations</i>
Haematology .....	5,739
Urine tests .....	1,547
Urea clearance .....	69
Single urea test .....	16
Yeast fermentation .....	34
Sugar tolerance .....	14
Single sugar test .....	2
Gastric analysis .....	6
Van den Bergh test .....	2

## Post-mortem Examinations

As part of the arrangements organised through the Child Health Institute, post mortem examinations were carried out by the pathologist at the Children's Hospital. The following is a list of post mortem examinations performed :—

Sorrento Maternity Home .....	98 cases
Heathfield Maternity Home .....	43 „
Lordswood Maternity Home .....	18 „
Erdington Maternity Home .....	11 „
Total .....	170 „

## Tuberculous Cases

The ante-natal care of tuberculous pregnant women was again undertaken by the Senior Medical Officer in charge of Sorrento Maternity Home. Regular visits were made to patients in Yardley Green Sanatorium, West Heath Sanatorium and Salterley Grange Sanatorium. Fifteen patients were visited ; 10 of these were transferred to Sorrento Maternity Home



for delivery and later returned to the Sanatorium. Five were visited for ante-natal care only. In addition, 10 out-patients suffering from tuberculosis were delivered at Sorrento and one home visit was made to a patient who was unable to attend the ante-natal clinic.

**Inspection and Registration of Nursing Homes and Nurses' Agencies**

**Nursing Homes**

At the end of 1947, there were 38 nursing homes on the register. Five new homes opened during the year, two for maternity with eight and five beds respectively, and three for chronic medical cases with a total of 35 beds. One maternity home has changed ownership. Three homes closed during the year, one for six maternity beds and two for chronic medical cases, of nine and fifteen beds respectively. One combined maternity and medical home has closed its maternity unit of five beds.

The total number of visits paid to nursing homes during the year 1947 was 127 (106 by Medical Officers and 21 by Supervisors of Midwives).

Total number of beds in homes	.....	.....	.....	.....	.....	408
No. of homes which are equipped for surgical work	.....	.....	.....	.....	.....	4
No. of homes which take chronic or senile cases only	.....	.....	.....	.....	.....	16
No. of homes which take maternity cases only	.....	.....	.....	.....	.....	18*
No. of homes which keep some beds for maternity cases	.....	.....	.....	.....	.....	2†
* With 120 beds.						
† With 6 beds.						

**Nursing Agencies**

In accordance with the Nurses' Act of 1943 and the Nurses' Agency Regulations, 1945, applications were received from six Agencies and renewals of licences were granted in each case. Thirteen visits of inspection were paid.

**HEALTH VISITORS' TRAINING COURSE, 1947-48**

The twenty-fifth course of training for the Health Visitors' Certificate commenced on Monday, 1st September, 1947.

The response to the advertisement for students again showed some improvement. Eighty-five completed applications were received and 28 Birmingham students were appointed. Groups of candidates attended the Training Centre to write the preliminary test at regular intervals throughout the six months prior to the meeting of the Selection Committee. The eleven local authorities in the Region participating on the training scheme received 33 completed applications and 22 students were selected for training, making a total of 50 students in training.

With the increased number of local authorities offering facilities for practical training, it has been possible to arrange for each student to gain experience in the Public Health Departments of two urban authorities



in addition to experience in a rural area. The students have very much appreciated this wider experience which they have found both interesting and instructive.

The Social Science Department of the University have extended an invitation to the Student Health Visitors to take part in their discussion groups which are held weekly in the Training Centre. It is felt that an exchange of views on different aspects relating to subjects of mutual interest make a valuable contribution to the training of students.

Dr. U. Cox, Medical Officer to the Carnegie Infant Welfare Centre, has retired as lecturer to the Student Health Visitors. Dr. Cox has been associated with the Training Course for many years. She has been succeeded by Dr. V. M. Crosse.

Lectures on mental deficiency are now given by Dr. J. E. Greener.

Forty-eight students entered for the examination in April, 1947. Forty were successful. All the students who failed have now successfully passed the examination.

### HEALTH VISITING SERVICE

The visited child population again shows an increase, on this occasion of 4,651 on the previous year.

<i>Year</i>	<i>Number of visited children</i>		<i>Number of Health Visitors engaged whole-time on Maternity and Child Welfare work</i>	
	<i>Dec. 31st.</i>		<i>Dec. 31st.</i>	
1938	.....	69,698	.....	95
1939	.....	70,289	.....	95
1940	.....	67,826	.....	96
1941	.....	65,259	.....	97
1942	.....	70,008	.....	97
1943	.....	75,310	.....	98
1944	.....	82,839	.....	99
1945	.....	86,935	.....	98
1946	.....	93,572	.....	103
1947	.....	98,223	.....	111
Total number of routine visits paid to children under 5 years				261,408
Total number of special visits paid to children under 5 years				13,420
Total number of visits to expectant mothers				19,661
Total number of visits post-natally following ophthalmia, still-				
births and neo-natal deaths				1,582
Total number of visits to scabies, home helps and neglect cases				4,440
Total number of fruitless calls				62,248
				<hr/>
				362,759
				<hr/>

As a result of the increased number of health visitors the average case load per health visitor in December shows a very slight decrease on 1946, although the total visited child population has increased.

The position as regards the case load per visitor over the last 10 years is as follows :—

Year	No. of Health Visitors engaged solely at Maternity and Child Welfare Centres		Case Load on Dec., 31st.	Year	No. of Health Visitors engaged solely at Maternity and Child Welfare Centres		Case Load on Dec., 31st.
1938	.....	95	733	1943	.....	98	766
1939	.....	95	739	1944	.....	99	834
1940	.....	96	706	1945	.....	98	887
1941	.....	97	661	1946	.....	103	908
1942	.....	97	721	1947	.....	111	893

When the ten year period 1938-47 is considered, it is seen that the visited child population under the age of 5 years has increased by 41 per cent. but the number of health visitors employed has increased by only 17 per cent. In consequence, it has been found impracticable to adhere to a uniform scheme of visiting throughout the City. A satisfactory scheme of home visiting would be as follows :—

Under 12 months	.....	.....	.....	.....	.....	.....	13 visits
1—2 years	.....	.....	.....	.....	.....	.....	4 „
2—5 years	.....	.....	.....	.....	.....	.....	2 „

On the present visited child population under 5 years this would entail 486,741 routine visits yearly, whereas only 261,408 routine visits were, in fact, paid to children under the age of five years. It was decided, therefore, to evolve a plan of visiting for each welfare centre area adjusted according to the time available for home visiting and the child population to be covered. With this end in view, a staff conference was held at each welfare centre in order to draw up for the area, a visiting plan which there was some possibility of fulfilling. In all cases, priority was given in the plan to visiting children under one.

The diminution in the amount of district visiting has meant that although the total number of children visited shows an increase the average number of visits per child over the age of one year has shown a fall. This is reflected in the centre attendances, which have shown an increase for the infants under one year but in all other age groups have shown a fall. In practically all instances it has proved possible only to visit as follows :—

As soon after the 14th day as possible.

14 days—1 year ..... Centre-attenders 2 monthly.  
Non-Centre-attenders monthly.

During the 2nd year ..... Centre-attenders every 4 months.  
Non-Centre-attenders every 3 months.

During the 2nd-5th year Once a year.

The introduction of clerical assistants at the welfare centres has relieved the health visitors of a considerable amount of work, and so has enabled them to give additional time to the more technical side of the work

at the centres, and has increased the number of visiting sessions. Part-time clerks are at present engaged at 25 centres for a total of 131 sessions weekly. The remaining centres are fortunate in having sufficient voluntary help.

Full-time clinic nurses are employed at two centres, namely Carnegie and Monument Road. Clinic nurses are giving part-time assistance at the following centres :—

- |                                  |                              |
|----------------------------------|------------------------------|
| Irving Street, Four sessions.    | Sutton Street, Six sessions. |
| Kettlehouse, Five sessions.      | Tower Hill, Five sessions.   |
| Lancaster Street, Four sessions. | Trinity Road, Four sessions. |
| Lansdowne Street, Four sessions. |                              |

While the employment of clinic nurses is necessary as a short-term policy, they cannot wholly replace health visitors at the clinics. The limitations of their training on the preventive side means that they cannot undertake the important task of individual and group teaching. In consequence, this teaching at the present time is inadequate, in particular at ante-natal clinics ; for the individual health visitors who remain in the clinics must, with this dilution of staff, carry more responsibility for the running of the clinic, and in consequence have less time for teaching.

Further, there is the added risk that the health visitors who are thereby relieved of clinic duties may not see the mothers from their district when they attend the clinic, a situation which is disappointing both to the mother and the visitor.

Children Visited in 1947

<i>Year of Birth</i>	<i>Number visited</i>		<i>% visited children attended Centres</i>	<i>% for corres- ponding groups in 1946</i>
	<i>Number</i>	<i>Number attended Centre</i>		
1942 (Attained age of 5 years in 1947)		1,586	—	—
1943	17,749	3,233	18.2	19.7
1944	19,573	4,298	21.9	25.7
1945	17,422	5,167	29.6	33.9
1946	20,886	13,407	64.2	68.9
1947	22,593	18,086	80.0	77.3
	98,223	45,777	—	—

The total percentage of visited child population (1943-47 age groups) which attended centres during the year was 44.9, a decrease of 3.1% for the same age group in 1946.

## Movement of Staff

During the year, twenty visitors left the staff for the following reasons :—

By retirement .....	2
Retired on grounds of health .....	1
By marriage .....	2
By transfer to other local authorities	
(a) for domestic reasons .....	6
(b) for other reasons .....	2
By transfer to health visiting with S.A.A.F.A. in Austria .....	2
To relief work in Germany .....	1
By return to hospital work .....	1
By return to midwifery work .....	3
	<hr/>
	20
	<hr/>

Twenty-three students were retained for the second year of their contract, and four additional appointments of existing health visitors from outside were made during the year.

Miss M. M. Anderson, who was granted leave of absence, commenced the Mental Health Course at the London School of Economics in October.

## Sickness

The health visiting staff have been working under very great pressure throughout the year. This no doubt has had a bearing on the sickness rate which has been high during the year—a total of 2,060 working days has been lost making an average of 19 days per year per health visitor.

The following were the chief conditions responsible :—

Colds, influenza and respiratory catarrh .....	608 days
Operations, other than abdominal .....	109 „
Operations, abdominal .....	444 „
Accidents .....	238 „
Neuritis and fibrositis .....	226 „
Gastritis, etc. ....	58 „
Varicose veins .....	58 „
Specific infections (whooping cough, German measles) .....	58 „
Other conditions (including eye, ear, nose and throat, teeth, feet, debility, etc. ....	164 „
Domestic emergencies .....	97 „
	<hr/>
	2,060
	<hr/>

The number of days lost by sickness in

1945 .....	1,260—Average 12 days per health visitor.
1946 .....	1,354—Average 13 days per health visitor.



## MATERNITY AND CHILD WELFARE CENTRES

The number of centres provided and maintained by the Council is 32.

### Ante-natal Clinics at Child Welfare Centres

The number of clinics held weekly was 88, with an average attendance of 20·9. The number of individual women attending has decreased by 1,227 and the total attendances decreased by 734 when compared with 1946.

### Mothers' Attendances at Ante-natal Clinics

	1946	1947	<i>Increase or Decrease</i>
Number of ante-natal clinics held .....	4,084	4,586*	+502
New mothers booked during 1947 .....	16,833	15,768	—1,065
Total individual women attending .....	21,898	20,671	—1,227
Total ante-natal attendances .....	96,824	96,090	—734

\* Including 601 midwives' sessions.

Ante-natal clinics are also held at the City Maternity Homes, the Maternity Hospital, Dudley Road and Selly Oak Hospitals, to any of which consultation cases can be referred.

### Rhesus Tests

Beginning in January, 1947, tests for the Rh. factor were commenced at four selected centres. In September this test was extended to include all mothers attending the ante-natal clinics for the first time.

### Mass Radiography

In December, arrangements were completed for offering mass radiography to all ante-natal mothers attending for the first time.

### Post-natal Clinics at Child Welfare Centres

At these clinics the mother receives her own physical examination between the 6th and 8th week after confinement. She is also invited to bring her baby until the infant is three months old.

The total number of primary post-natal examinations and re-examinations at post-natal and ante-natal clinics was 5,180, an increase of 250.

The following table shows the result of these examinations :—

Total number of cases examined .....	5,180
Number of cases showing no abnormality .....	2,015
Number of cases showing abnormality .....	3,165
Percentage of cases showing abnormality .....	61·1



### *Abnormal conditions found*

Breasts—mastitis .....	54
Genital tract .....	2,497
Urinary tract .....	122
White leg .....	7
Other conditions .....	2,923

(More than one abnormality may be found in the same mother).

### *Post-natal clinic attendances*

	1946	1947
Number held .....	1,445	1,521*

### *Mothers :*

No. of primary examinations .....	4,591	4,922
No. of re-examinations.....	339	258
Total examinations .....	4,930	5,180
Average number of examinations per consultations	3.4	3.4

### *Infants :*

No. of new infants attending .....	11,535	12,542
Total number of infant attendances .....	60,771	64,671
Total examinations by doctor.....	23,533	23,883
Average attendance of infants per consultation	42.0	42.5
Average number of infants seen by doctor per consultation .....	16.3	15.7

(\*No doctor attended at 9 of these clinics).

In addition, many post-natal examinations are conducted at the maternity homes and hospitals and by private doctors and in nursing homes.

### **Attendance of Children at Child Welfare Centres**

Total number of attendances at child welfare centres during 1947 :—

(1) By children under 1 year of age .....	231,947
(2) By children between 1—5 years of age .....	55,024

Total number of children who attended a centre for the first time during the year and who, at the time of their first attendance, were :—

(1) Under 1 year of age .....	21,158
(2) Between 1—5 years of age .....	2,919

The number of children attending a centre for the first time show an increase of 2,403 for the under 1 and 383 for the 1—5 years old children.

Total number of individual children who attended during the year, and who on December 31st, 1947 :—

(1) Were under 1 year of age	.....	.....	18,086	} = 45,777
(2) Were between 1 and 5 years of age	.....	.....	26,105	
(3) Had attained 5th year of age	.....	.....	1,586	

The number of attendances at each type of child welfare clinic is shown in the table below :—

<i>Children's attendances.</i>	1946	1947	<i>Increase or Decrease.</i>
Individual children attending	44,888	45,777	+889
Total attendances made at infant clinics	179,780	199,804	+20,024
Total attendances by infants at post- natal clinics	60,771	64,671	+3,900
Total attendances made at pre-school medical inspections	22,645	22,496	—149
Total children's attendances	263,196	286,971	+23,775

## Children's Clinics

Children of any age up to 5 years may attend these clinics, though mothers with babies under 3 months are encouraged to attend the post-natal clinics, and toddlers to attend the toddlers' inspection clinics.

<i>Number of clinics held</i>	1946	1947	<i>Increase or Decrease</i>
With doctor attending	2,439	3,318	+879
Without doctor attending	1,023	255	—768
Total	3,462	3,573	+111

New children attending	8,583	9,958
Total attendances	179,780	199,804
Average attendance per clinic	51.9	55.9
Total seen by doctor	50,244	65,015
Average seen by doctor per clinic	20.6	19.5

## Medical Inspection of Pre-School Children

These clinics are held for the medical inspection of pre-school children between 18 months and 5 years of age. Quarterly appointments are given and the mother is encouraged to keep these regularly. If more frequent supervision is considered desirable, the mother is advised to bring the child in the interim to the ordinary consultation.

The number of pre-school clinics held during the year was 1,469— an increase of 175 over 1946 ; the average attendance per clinic was 16, a decrease of 1.5 compared with 1946.

The following table gives an analysis of the attendances and conditions found :—

*Section A.*

<i>Numbers</i>	1946	1947	<i>Increase or Decrease</i>
Number of clinics .....	1,294	1,469	+175
Total attendances .....	22,668	22,496	—172
Number of children attending for first time at any clinic .....	1,173	1,577	+404
Number of children attending toddlers' clinic for first time .....	—	3,908	
Number with one or more defects .....	6,522	6,809	
Number with adverse environmental conditions .....	2,567	2,691	
Number with acute illness during the year .....	1,547	2,110	

*Section B.*

<i>Environmental conditions</i> .....	1947
Clothing unsuitable or inadequate .....	89
Rest : bedtime later than 7 p.m. ....	3,533
No day-time rest .....	5,986

*Section C.*

*Classified defects*

*Eyes :*

Squint .....	254
Inflammatory conditions .....	112
Other eye conditions .....	48

*Skin :*

Eczema .....	142
Purulent conditions .....	96

*Ear, nose and throat :*

Deafness .....	27
Otorrhoea .....	201
Enlarged or diseased tonsils and/or adenoids .....	2,490
Nasal obstruction and/or mouth breathing .....	384

*Teeth :*

Carious or defective .....	1,614
----------------------------	-------

*Glands* .....

827

*Heart :*

Congenital diseases .....	95
Rheumatic heart conditions .....	33

*Anaemia* .....

108

*Lung conditions* .....

120

*Rickets :*

Active .....	186
Rachitic deformities .....	1,105
Other deformities .....	1,195

*Mentally backward* .....

112

*Speech (backward or defective)* .....

200

*Other defects* .....

507

(More than one defect may occur in the same child).

## Ultra-Violet Light Clinics

The ultra-violet light clinics were held until Easter, 1947, and have not since been recommenced, partly owing to the fuel cuts which interfered with the continuous functioning of the lamps during the clinic periods and partly to the need for increasing the number of health visitor home visiting sessions. The number of attendances in the first quarter of the year was 4,851.

## Remedial Exercises

The remedial exercises clinics have suffered slightly on account of the changes of staff. The clinics previously taken by Miss Nicholls, who left on December 31st, 1946, after one year's service, were suspended until February, 1947. When Miss Rowe was appointed, classes were again opened on the north and east side of the City and four sessions held at Canwell Hall. Unfortunately, Miss Rowe left in October and, as no successor could be found, her classes had to be closed down. The two part-time physiotherapists continued to give us 10 sessions weekly.

Individual children attending	.....	.....	.....	690
Number of sessions held	.....	.....	.....	370
Total attendances	.....	.....	.....	5,284
Average attendances per session	.....	.....	.....	14.3

## Dental Treatment

Two part-time specialist anæsthetists were appointed during the year.

		<i>Carnegie Institute</i>	<i>Stratford Road</i>	<i>Lancaster Street</i>	<i>Selly Oak</i>	<i>Total.</i>
Number of clinics held	.....	251	208	151	36	646
Total attendances :						
(Mothers)	.....	3,511	2,831	1,969	401	8,712
(Children)	.....	642	589	471	195	1,897
Average attendance per session :						
(Mothers)	.....	14	13.5	13	11	13.5
(Children)	.....	2.5	2.7	3	5.2	2.9
Local anaesthetics	.....	100	152	55	5	312
General anaesthetics	.....	1,401	1,358	997	528	4,284
Dentures supplied	.....	855	547	355 (Dentures to Carnegie)		1,757
Free	.....	2	1	2		5
At reduced cost	.....	2	1	2		5

## Treatment of Ear, Nose and Throat Conditions

Ear, nose and throat consultations have been held at weekly intervals by Mr. Robert Evans at Lancaster Street Welfare Centre.

Number of children called .....	758
Number of children recommended for operation .....	388
Number of children referred back to centre for observation .....	264
Number of children who failed to attend .....	106
Number of children recalled with a view to an early operation .....	305
Number of children recommended for operation .....	213
Number of children not requiring operation .....	12
Number of children who failed to attend .....	80

By arrangement with the Education Committee, 9 beds per week for tonsillectomy at a cost of £2 10s. 0d. per child were allotted to the Maternity and Child Welfare Department at the Soho Road School Clinic. This scheme could not be put into force until the 5th November, 1947, owing to the increased incidence of infantile paralysis.

Number of children called for operation at Soho Road School clinic	73
Number of children who have had tonsillectomy .....	55
Number of children who failed to attend for tonsillectomy .....	18

Cases referred from Maternity and Child Welfare Centres and examined during 1947 at the Children's Hospital for the treatment of the above conditions were :—

Eye, ear and throat cases .....	221
Tonsils and adenoids (operations performed) .....	23
Tonsils and adenoids (examination only) .....	108
	<hr/>
	352

## Parents' Guidance Clinic

Dr. John Hammond, who undertook the work of the Parents' Guidance Clinic in Birmingham in 1935, retired on June 27th, 1947, to the great regret of all. He was succeeded by Dr. A. A. Huse, who took up a temporary appointment on July 1st, 1947.

During the year 1947, 76 sessions were held with a total attendance of 318. From July 25th, 1947, two sessions weekly were held. The extra clinic has been of great benefit to the parents inasmuch as it has enabled early appointments for new cases to be made and more regular attendances of old cases. In the past, new cases failed to attend the clinic because of the long wait for an appointment.



Eighty-four new patients attended and included 45 boys, 29 girls, 9 mothers and 1 father, who were referred for the following reasons :—

#### CHILDREN

Enuresis combined with one or more symptoms of an emotional nature	23
Fears	9
Aggressiveness	8
Temper tantrums	8
Destructiveness	4
Mismanagement	4
Anorexia	3
Thumb sucking and pulling out own hair	2
Extreme excitability	2
Backward in speech	2
Stammering	2
Retention of faeces	2
? Mentally retarded	3
Sleeplessness	1

#### ADULTS

Acute depression	7
Anxiety state	3
? Mentally retarded	1

---

84

---

One child was found to be mentally defective. Four mothers were referred for electric shock therapy.

The parents continue to express their appreciation of the clinic and welcome the opportunity of discussing child management. The extra visiting sessions since September, 1947, have enabled more individual visits to be paid by the health visitor attached to the clinic, thus maintaining the interest of the parents in the Parents' Guidance Clinic, with a subsequent increase in numbers of attendances. One mother made the five mile journey on foot, with her child, during the 'bus strike to fulfil her appointment.

It is interesting to note the increased confidence of the mother after a few attendances at the clinic at three to four weekly periods.

The small library is still an invaluable help and promotes discussion and interest between fathers and mothers. The fathers continue to show an interest in the work of the clinic, especially during the home visits, as some fathers are still experiencing difficulties in adjustment to home life after the enforced separation of the war years. There is an increasing number of children referred to the clinic whose difficulties are of an emotional nature aggravated by domestic tension due to living with relations.

## OTHER ACTIVITIES

### Sewing Classes

Sewing classes were held at 26 centres with a total attendance of 9,183, a decrease of 1,987. This is due to the longer breaks at school holiday periods consequent on the new arrangement made in September, 1946, whereby the Evening Institutes are responsible for supplying the teachers for these classes. These breaks are very unpopular with the mothers, and make it more difficult to sustain the interest in these classes.

### Health Talks at Centres

During the year demonstrations on the care of milk and milk bottles, fruit bottling and jam making have been held at several centres, and are included in the 85,816 talks given to groups of mothers during the clinic sessions. Miss Pearson has continued her talks to ante-natal mothers at the ante-natal clinics at Dudley Road and Selly Oak hospitals.

### Visits

There has again been a great demand for arrangements to be made for routine visits by various groups to see the work of the Maternity and Child Welfare Department. The routine programmes fixed are as follows :—

Sixty student midwives taking Part II Course=5 sessions each at a Centre.

Child Care Reserve students—10 groups of each=1 session each at a Centre.

Fifty-four industrial nurses=2 sessions each at a Centre.

Nursery students—5 groups of 20=1 session each at a Centre.

In addition, several Social Science students from Selly Oak Colleges attended individual centres for practical experience extending over one term. Other sessions at centres have been arranged for individuals and groups of visitors from the Selly Oak Colleges, Anstey Training College and The Physical Training College, Hereford. Arrangements were made for 280 students from the City of Birmingham Teachers' Training College to visit centres, but only 69 responded. Other visitors included doctors (19), D.P.H. students (11), medical students (59), health visitors (2), sister tutor student (1), Queen's nurse (1), teachers (20), student-teachers (4), members of various non-medical professions (14).

Several domestic science teachers accompanied health visitors during a visiting session and many reports have been received stating how valuable this experience has been. A press delegation from Germany interviewed representative mothers at Trinity Road Centre.

Our visitors included representatives from the following countries : Brazil, Denmark, Egypt, Germany, Holland, India, Malta, Norway, Palestine, Poland, Sweden, Canada, Africa, Australia, Czecho-Slovakia, Italy, Malaya and Greece.

## Refresher Courses

Twenty-four health visitors attended refresher courses, each of a fortnight's duration, which were held at Southampton, London (3 courses), Cambridge and Durham.

The Royal College of Nursing arranged a residential refresher course in Birmingham in April which was attended by health visitors from various parts of the country.

Groups of health visitors have visited the Accident Hospital (Burns Unit), and the Co-operative Dairy on a number of Saturday mornings during the year.

## Home Safety Exhibition

A rota of Health visitors staffed the Maternity and Child Welfare Stall at the Home Safety Exhibition, which was held from September 22nd—27th, 1947.

## Nursing Recruitment Campaign

In connection with the Campaign, an exhibition was held in Birmingham Town Hall from April 29th, 1947—May 3rd, 1947. The School Medical Department and the Maternity and Child Welfare Department joined forces in preparing a stall showing, by means of photographs, the various activities of the two departments. Relays of health visitors and school nurses were in attendance to answer any questions or give explanations.

The Preliminary Training Sub-Committee associated with the Recruitment Campaign placed before the Executive Committee a recommendation that in addition to nursery nurse training there should be the following training courses :—

(1) **Pre-Nursing Course**—(girls 16 years of age and over) :

Two-year course for girls who have attained a reasonable educational standard.

4—5 half-days each week—theoretical instruction at Aston Technical College during first year.

2nd year spent at Central Technical College—Practical work in child welfare clinics, school clinics and school medical inspections.

Conditions of service and allowances would be on the same basis as nursery students.

(2) **Preliminary Training Course** (girls of 15 years and over) :

Students would be employed by the Public Health Department and Education Department in nurseries and nursery schools and classes. They would spend one day a week at a continuation school and four and a half days in nurseries, nursery schools and nursery classes.

Conditions of service and allowances would be on the same basis as for girls under 16 years of age employed in nurseries and nursery schools.

As a result of this, a pre-nursing course has been organised by the Education Department. Six candidates were accepted and arrangements made for practical experience in the school clinics and maternity and child welfare clinics and day nurseries.

### Dental Survey

At the request of Professor Humphries, facilities have been made available for a dental survey under the ægis of the Medical Research Council. Mr. Leighton began visiting representative toddlers' clinics in November, 1947, for the purpose of examining and reporting upon the dental health of the children and especially in regard to the degree of occlusion of the jaws.

### Social Surveys

The Department of Social Medicine at the University has sought the co-operation of this department to enable them to conduct certain enquiries into research problems relating to child health. The following inquiries are included :—

- (1) Investigation into congenital abnormalities of the central nervous system.
- (2) Study of infant weight at birth in relation to certain material factors and social differences.
- (3) Study of the causes of stillbirth.
- (4) Study of the relation of the method of feeding in the first year to infant death.

### School Clinics

At the request of the Education Department, permission was given for the holding of a weekly session of a minor ailment clinic at Kingstanding Centre, which began on Tuesday, July 7th, 1947.

### The Domestic Help Service, 1947

Number of domestic helps employed full time	.....	.....	.....	83
Number of domestic helps employed part time	.....	.....	.....	27
				—
				110
				—

Number of cases attended by Domestic Helps :—

Confinement cases	.....	.....	.....	.....	1,352
Ante-natal and post-natal cases	.....	.....	.....	.....	93
Housewife ill	.....	.....	.....	.....	102
Housewife was called away from home	.....	.....	.....	.....	1
Elderly people who were infirm, or one of whom suddenly fell ill	.....	.....	.....	.....	70
Several members of one family were ill	.....	.....	.....	.....	1
					—
					1,619
					—



The training of Home Helps continues satisfactorily. Sixty Home Helps have received a course of instruction during the period October, 1944—December, 1947. Ten Home Helps are available to act as Resident Home Helps.

**Canwell Hall Babies' Hospital (60 Cots)**

<i>Number of Admissions :</i>							
0—1 year	.....	.....	.....	.....	.....	.....	142
1—5 years	.....	.....	.....	.....	.....	.....	178
Total							320

<i>Number of Discharges</i>	.....	.....	.....	.....	.....	.....	317
(2 against advice)							
<i>Number of Deaths</i>	.....	.....	.....	.....	.....	.....	6

The cases discharged home were diagnosed as follows :—

Chest infections (pneumonia, bronchitis, asthma)	.....	.....	.....	.....	.....	.....	69
Debility and malnutrition	.....	.....	.....	.....	.....	.....	57
Ear, nose, throat infections (otorrhoea, acute tonsillitis, mastoiditis)	.....	.....	.....	.....	.....	.....	37
Gastro enteritis	.....	.....	.....	.....	.....	.....	20
Tuberculosis (primary complex. 16, miliary 1, abdominal 2, meninges 1, glandular 1)	.....	.....	.....	.....	.....	.....	21
Feeding difficulties	.....	.....	.....	.....	.....	.....	13
Pyelitis	.....	.....	.....	.....	.....	.....	7
Anaemia	.....	.....	.....	.....	.....	.....	7
Pink disease	.....	.....	.....	.....	.....	.....	7
Rickets	.....	.....	.....	.....	.....	.....	6
Coeliac	.....	.....	.....	.....	.....	.....	2
Other conditions (including megacolon, and congenital disease)	.....	.....	.....	.....	.....	.....	12
For observation	.....	.....	.....	.....	.....	.....	19
							277

<i>Incidence of Infectious Diseases</i>	.....	.....	.....	.....	.....	.....	23
Dysentery	.....	.....	.....	.....	.....	.....	10
Rubella	.....	.....	.....	.....	.....	.....	7
Diphtheria	.....	.....	.....	.....	.....	.....	3
Measles	.....	.....	.....	.....	.....	.....	2
Mumps	.....	.....	.....	.....	.....	.....	1

*Deaths :*

<i>Classification of ages of deaths :</i>							
0—2 months	2—6 months	6—12 months	1—5 years				
2	2	2	—				

<i>Causes of death :</i>							
Multiple lung abscesses	.....	.....	.....	.....	.....	.....	1
Miliary tuberculosis	.....	.....	.....	.....	.....	.....	1
Acute mastoiditis	.....	.....	.....	.....	.....	.....	1
Gastro-enteritis	.....	.....	.....	.....	.....	.....	1
Pneumonia	.....	.....	.....	.....	.....	.....	1
Prematurity and bronchopneumonia	.....	.....	.....	.....	.....	.....	1
							6



## HEALTH EDUCATION

During the past year, to allow for expansion of activities, the staff engaged in health education work has been increased by the appointment of three additional whole time members of staff, i.e., two male lecturers and one female lecturer. In addition, Dr. Warwick has been made responsible for developing and co-ordinating the work. In spite of the continual pressure of work in district visiting and attendance at child welfare centres, 41 health visitors during the year undertook outside lectures both in and out of duty hours.

As the whole-time staff now consist of three male lecturers, one female lecturer and a shorthand-typist, it was necessary to provide more office room for this work and temporary accommodation was obtained in Room 5 of the basement of the Public Health Department of the Council House. By the end of the year it was becoming apparent that this accommodation was inadequate.

Considerable expansion has taken place during the past year, the range of subject matter has been materially extended and a wider field of population has been reached.

<i>Lectures given :</i>		1946	1947
Lectures at schools	.....	407	745
Lectures to youth organisations	.....	46	135
Lectures to adult groups	.....	124	173
		<hr/> 577	<hr/> 1,053
		<hr/>	<hr/>

### Teaching in Schools

The raising of the school leaving age provided the opportunity to introduce a syllabus of school lectures covering a much wider field of health education.

A course on mothercraft extending over one year, including visits to maternity and child welfare centres and dairies and the showing of suitable films has commenced in a number of girls' schools. For other schools a comprehensive hygiene course has been introduced. Arising from the contacts in the schools a request was made by the Education Department for a special three-day course on child care for members of their staff. This was arranged and attended by head mistresses and domestic science teachers. As the result of this course, some head mistresses have asked for advice and help in arranging new schemes of health teaching in their schools.

In boys' schools, expansion has taken place on the following lines ; two distinct courses have been offered.

#### (1) " Living and Learning."

This course is given to first, second, third and fourth year boys.

(2) " Physiology and its application to all aspects of Health."

This is a more advanced course designed to meet the needs of the older boy.

The time allotted to each course is one period a week extending over 40 weeks.

### **Out of School Activities**

**Children's Cinema Clubs.** A certain number of health films with talks have been shown on Saturday mornings at the following cinemas:

The Odeon, Warley.

The Odeon, Kingstanding.

The Odeon, Perry Barr.

Difficulty is experienced in finding films suitable for showing to such a wide age range as is found in children's audiences. If more films were available, this work could be expanded. This type of teaching is particularly valuable as it is possible to deal with large numbers in a short time.

**Youth and Adult Organisations.** Demands from these organisations show a marked increase; these groups in particular have shown expansion :—

(1) Co-operative guilds.

(2) Probation homes.

(3) His Majesty's Prison, Winson Green.

An experimental course of mothercraft was introduced to selected women prisoners and has been most successful.

### **Parent Teacher Associations**

Requests for advice and help regarding the preparation of syllabuses and suggestions for lectures are increasing. More of these groups are being formed and it seems likely that this branch of the work will continue to grow.

### **Birmingham Accident Prevention Council**

An exhibition demonstrating " Safety First " was held in the basement of the Town Hall. A section dealing with " Safety in the Home " was prepared by the Department.

Assistance has been given in arranging various exhibitions held during the year in connection with the Girls' Training Corps and the Maternity and Child Welfare Centres.

### **Library Books**

During 1947 increased demands have been made by lecturers for the use of library books and visual aids. The scope of the work is extending and a wider range of literature is needed. Health education lecturers greatly appreciate the opportunity of borrowing up-to-date books which assist in the preparation of lecture material.

## Posters

Posters are either purchased or prepared in the department.

## Film Strips

A film strip apparatus has been purchased and is in great demand.

## NURSERIES

Following the recommendations made in 1946 by the Education Committee and the Health Committee to the City Council, the last of the fifteen maycrete hutted nurseries have been taken over this year by the Education Committee and converted into nursery schools, as follows :—

Marsh Hill Nursery	.....	.....	.....	.....	.....	3.2.47
Beeches Road Nursery	.....	.....	.....	.....	.....	3.2.47
Goodway Road Nursery	.....	.....	.....	.....	.....	3.3.47
Ward End Park Nursery	.....	.....	.....	.....	.....	28.4.47
West Heath Nursery	.....	.....	.....	.....	.....	5.5.47
Pershore Road South Nursery	.....	.....	.....	.....	.....	16.6.47
Allenscroft Road Nursery	.....	.....	.....	.....	.....	13.10.47

The number of day nurseries now under the control of the Health Committee has been reduced to 45, being approximately two-thirds of the number open during the war years. This number now allows for 2,293 nursery places as compared with 2,584 places in January, 1947. In December, 1947, there were 2,341 children on the nursery registers as compared with 2,403 in January, 1947 ; the average attendance was 1,614 compared with 1,730 at the beginning of the year. On the other hand, 2,885 were on the waiting list as compared with 1,301 in January, 1947.

Owing to the increasing size of the waiting list, it was decided from July, 1947, to reserve places in the nurseries for children whose mothers were doing essential work, particularly in connection with the export drive.

Because of the demand for load shedding made by the Ministry of Fuel and Power, the factories altered their working hours, deciding to work 12 hours daily 4 days per week, allowing one free working day and a free Saturday.

This accounts in part for varying attendances in the nurseries and for lower averages and small attendances on Saturdays.

Owing to the pressure of the demand for day nursery provision in the Bloomsbury Street area, it was decided to re-open 77, Great Brook Street on the 18th August, after certain adaptations were completed.

**92-4, Pershore Road.** Number 94, Pershore Road was released for private occupancy and 92, Pershore Road was re-adapted for a small unit of 13 babies and tweenies and a reception room for 20 toddlers who were conveyed by an ambulance daily to and from Allenscroft Road nursery, until that nursery closed on the 13th October, 1947.

**30a, Allenscroft Road.** Owing to heavy demand for nursery places in Balsall Heath area and the closure of the toddler unit at 92-4,

Pershore Road, it was decided to transport 40 children to Allenscroft Road Nursery, which had little local demand—20 children being collected from Hope Street Welfare Centre, and 20 from 92, Pershore Road each morning and transferred to Allenscroft Road Nursery by ambulance and returned to the collecting stations at night. When this nursery closed on the 13th October, 1947, arrangements were made to convey the children to and from their reception centres—10 to Springfield Road, 15 to 671, Yardley Wood Road, and 15 to Highfield Road, Yardley Wood.

**Huts attached to Infant Welfare Centres.** These huts have been purchased by the Corporation from the Ministry of Health as follows :—

189, Shirley Road	.....	£500	298, Warren Farm Road	£425	
79, Marsh Lane	.....	£425	395, Monument Road	.....	£275
Highfield Road, Yardley Wood					£450

The hut built as a toddler annexe in the garden of 298, Birchfield Road, was purchased for £250.

## Kitchens

At the beginning of the year three central kitchens were responsible for the cooking of the mid-day dinners for all the day nurseries except one, and the provision of rationed and other goods to these nurseries for other meals.

Owing to the reduction in the number of day nurseries, it was decided to close the Yardley Green Road kitchen on the 26th April, 1947. The building and general items of equipment were transferred to Yardley Green Road Sanatorium.

## Average number of Meals served Weekly

### *Bacchus Road Kitchen :*

Main meals	.....	5,907
Breakfasts	.....	3,076
Teas.....	.....	4,742
Milk drinks.....	.....	8,760
Staff hot beverages	.....	5,310

### *Selly Oak Kitchen :*

Main meals	.....	6,398
Breakfasts	.....	3,049
Teas.....	.....	5,256
Milk drinks.....	.....	10,294
Staff hot beverages	.....	6,217

### *Total meals served weekly :*

Main meals	.....	12,305
Breakfasts	.....	6,125
Teas.....	.....	9,998
		<hr/>
		28,428
		<hr/>



**Islington Row.** The only day nursery cooking for itself served on the average weekly :—

Main meals	.....	.....	.....	.....	.....	.....	.....	191
Breakfasts	.....	.....	.....	.....	.....	.....	.....	123
Teas.....	.....	.....	.....	.....	.....	.....	.....	150
Hot beverages	.....	.....	.....	.....	.....	.....	.....	264

## Training of Nursery Students

A new National Nursery Examination Board has been formed and regulations for admission to the examination for the National Nursery Certificate have now been formulated. Of the 65 students who commenced the first course on the 3rd February, 1947, 25 withdrew or were found unsuitable for training as the term continued. Thirty students commenced the second term in August, but 10 withdrew or were found unsuitable for training.

<i>Examination—April, 1947</i>	.....	.....	21 entered	19 passed 2 failed
<i>Examination—July, 1947—London</i>	.....		5 entered + 1 re-entry	5 passed 1 failed
<i>November, 1947</i>	.....	.....	No entries	

## Child Care Reserve Courses

The following Child Care Reserve Courses were held at Garrison Lane Nursery School giving 4 weeks' training to nursery assistants, 18 years and over.

<i>April 14th—May 10th</i>	.....	.....	15 entries	13 passed 2 failed
<i>June 23rd—July 18th</i>	.....	.....	15 entries	13 passed 2 withdrew
<i>September 9th—October 3rd</i>	.....	.....	15 entries	10 passed 5 failed
<i>November 17th—December 12th</i>	.....		4 entries	3 passed 1 failed

## Wardens' Course

A Wardens' course was held at Garrison Lane Nursery School from 13th October to 30th October, 1947.

15 entries.      14 passed.      1 failed.

## Matrons' Refresher Course

A Matrons' Refresher Course was arranged and commenced in Birmingham on the 9th October, 1947. Owing to the difficulty of releasing Matrons from their Nurseries, it was decided to hold the lectures one afternoon per week, two lectures being given each afternoon. Visits to day nurseries and welfare centres were also arranged and appropriate films were shown. The last lecture of the course was given on the 4th February, 1948.



## Nursery Supervisors

One health visitor acts as Senior Supervisor of Nurseries, and four State registered nurses with nursery experience have been appointed Nursery Supervisors. All assist with the students' lectures and demonstrations. Two trained nursery school teachers act as Superintendents, and are responsible for the supervision of wardens and educational training in nurseries.

## Residential Day Nurseries

One 24-hour nursery still functions at 40, Somerset Road, for children of transport workers and they are resident there from Mondays to Saturdays each week, going home for week-ends.

Residential nurseries as a whole find great difficulty in acquiring senior staff. One reason is that the remuneration is not any more attractive than in day nurseries in spite of the fact that there is much more responsibility with week-end duty and no Bank holidays.

Another great difficulty in the residential nurseries is that many students have to be billeted out, as there is not enough residential accommodation in the nurseries, with the consequent inconvenience when the nurses are ill. On their off-duty days they have to get up at the same time and go to their parent nursery for meals. The bedroom only is provided with furniture, which is often sparse, and the nurses are not able to return to their billets till about 10 p.m.

At Droitwich, during September, "Briarlea," a substantially built brick residence near the nursery, was purchased by the Committee as a nurses' home for the Oaklands nursery. It has accommodation for 12 nurses and 1 warden-housekeeper.

Number of nurses in billets at end of 1947 :—

Oaklands	.....	.....	12	Pype Hayes	.....	.....	—
Overbury	.....	.....	5	Flint Green	.....	.....	4
Perry Villa	.....	.....	14	Meadway	.....	.....	12
Wassell Grove	.....	.....	2	Coleshill Road.	All nurses non-		
				resident			

## Nurses' Hostel

As four of these nurseries cater only for children 0—2 years, and one nursery for children 2—5 years, difficulty has been experienced in providing adequate toddler experience for the nurses to satisfy the conditions of the National Nurses' Examination Board examination. An offer of hostel accommodation at the District Nurses' Home, 948, Warwick Road, was gladly accepted. Five nurses were admitted on the 24th November, 1947.

Since September, 1947, it has been increasingly difficult to cope with the demand for admission of the 0—2 year olds to the residential

nurseries as the Education Department have been unable to arrange for the transfer of children reaching the age of two in our nurseries to Erdington Cottage Homes, owing to overcrowding there.

At the end of the year there were 32 children over 2 years of age still in the nurseries admitted through the Public Assistance Department.

**Wassell Grove Nursery.** Number of beds, 58. Children 0—5 years.

This residential nursery was completely isolated from all road communication as a result of heavy snowdrifts during February. Fresh milk supplies were unobtainable for 48 hours, but through the kind co-operation of the Worcestershire County Council Highways Department, and a neighbouring farmer, access was gained to the nursery and milk supplies were delivered.

A new pump house has been constructed and a new sewage scheme has been completed. It has also been decided to instal electric light to replace the gas lighting. Some extension to the central heating system was made because of inadequate heating in two Baby rooms.

Ninety children were admitted to the nursery and eighty-six were discharged during the year.

Thirty children were transferred to Little Bromwich Hospital with measles and three with chickenpox and measles. Since the 29th October, 1947, there were 9 cases of infective hepatitis affecting 8 nurses and 1 maid.

Five nurses sat for the nursery examination and 4 passed.

**Oaklands, Droitwich.** Number of beds, 50. 0—5 years.

There have been 69 admissions during the year and 71 discharges. There were 26 cases of rubella during March and April, 7 cases of Sonne dysentery in July and 18 cases of chickenpox in December, all of which were nursed in the nursery owing to the shortage of beds in Little Bromwich Hospital. Six cases of measles were transferred to Little Bromwich Hospital in August.

One nurse passed the nursery examination in November.

**Red House, Overbury.** Number of beds, 30. 0—2 years.

Thirty-two children have been admitted during 1947 and there have been 35 discharges. There were six cases of enteritis and five cases of whooping cough. The health of the staff has been exceptionally good this year ; there was one case of rubella.

Two nurses sat for the nursery examination and one passed ; the other failed but passed the examination at a later date.

**Carnegie Institute.** Number of beds, 10.

Owing to the unprecedented demand for admission of children 0—2 years to the residential nurseries through the Public Assistance Department, this nursery was opened from the 8th March, 1947, to the 14th June,

1947, providing 10 cots. The nursery had then to be closed to make way for the opening of the premature baby ward.

**146, Coleshill Road.** Number of beds, 22. 0—3 years.

There have been 76 admissions and 76 discharges during the year.

Thirty children have been transferred to hospitals for various reasons—18 of these being measles and three cases of rubella. One child, admitted to the Accident Hospital following scalds, died of pneumonia.

**Flint Green House.** Number of beds, 25. 0—2 years.

There were 87 admissions and 102 discharges.

Twenty-six children have been transferred to hospitals for various reasons, 9 cases of whooping cough and 3 cases of measles to Little Bromwich Hospital. Ten children were transferred to Canwell Hospital for observation.

**74-80, The Meadway.** Number of beds, 30. 2—5 years.

This nursery provides accommodation for 30 toddlers, admitted in the first place for short periods only. There were 164 admissions and 160 discharges during the year—128 of these being admitted straight from home and 120 discharged home. Twenty-five children were transferred to Little Bromwich Hospital with measles.

**Perry Villa.** Number of beds, 35. 0—2 years.

There were 179 admissions and 165 discharges during the year.

Fifteen cases of whooping cough occurred in January, thirteen of these being transferred to Little Bromwich Hospital, where one died. In August and October, one case of whooping cough occurred and all contacts in both cases were immunised. No further cases developed. Thirty-seven cases of measles were transferred to Little Bromwich Hospital during February and March—one of whom died.

Many children over 2 years have had to remain in the nursery, as transfer to Erdington Cottage Homes has been impossible.

**Pype Hayes Hall.** Number of beds, 42. 0—2 years.

There were 172 admissions and 164 discharges during the year.

Fourteen cases of Sonne dysentery were admitted to Little Bromwich Hospital from the 21st January, 1947 to 21st July, 1947, and seven cases of enteritis (two of whom died) were admitted to Little Bromwich Hospital. There were five cases of diphtheria among the children, four of whom were transferred to Little Bromwich Hospital and two nurses who developed it were also transferred to Little Bromwich Hospital.

A month old baby admitted to Dudley Road Hospital with bronchitis died three weeks later in Little Bromwich Hospital with nasal diphtheria.

Some children have had to remain in the nursery after reaching the age of two years, as transfer to Erdington Cottage Homes has been impossible.

### **Hawthorne House**

This property was bought by the Corporation for use as a residential nursery to accommodate 45 children from 0—2 years, but owing to difficulties met with during adaptations, its opening had to be postponed until 1948.

### **2, Hawthorne Park**

This house, adjoining Hawthorne House, was also bought by the Corporation for a nurses' home for the staff of Hawthorne House nursery, to accommodate 23 staff. This also will not be ready for opening until 1948.

## **RESIDENTIAL SCHOOLS**

There were three residential schools on the register at the beginning of the year. One of these—the Remedial Speech Residential School—ceased to admit resident children after the summer term owing to staff difficulties. Of the two remaining schools, one had only 5 boarders with 1 child under 9 years, and the other 43 boarders with 8 under 9 years.

## **VOLUNTARY HOMES**

These homes take children for maintenance and care apart from their parents.

**St. Philip's Catholic Home.** Three new children under 9 years were admitted during 1947, 22 children under 9 years being resident at the end of the year.

**Nazareth House, Rednal.** Twenty-eight new children under 9 years were admitted during 1947, 64 children under 9 years being resident at the end of the year.

**Church of England Children's Society.** 2 Homes.

(1) **Toddler Home**—for children 2—5 years. 14 children admitted during the year, and 20 children in residence at the end of the year.

(2) **Boys' Home.** Only one boy under 9 years was resident for part of the year, being later discharged to foster parents.

**Middlemore Emigration Homes.** Eleven new children under 9 years were admitted to the home during 1947, 33 children under 9 years being resident at the end of the year. Sixteen children emigrated during the year.



**Maryvale Nursery**—for children 1—5 years. Thirty-nine new children were admitted during 1947, 68 being in residence at the end of the year.

**Sir Josiah Mason's Orphanage.** Twenty-one new children under 9 years were admitted during 1947, 42 children under 9 years being in residence at the end of the year.

**“ Private Children's Hotel.”** A “ children's hotel ” was opened on the 14th May, 1947, and registered to take 4 children over and above the proprietor's own 2 children. Later the proprietor decided to remove to a much bigger house. This was occupied on the 10th September, 1947, where registration was given to take 8 children, including the proprietor's own 2 children. The premises are under regular inspection.

### CARE OF THE UNMARRIED MOTHER

During the year there was a decrease in the number of cases dealt with by this Department from 1,324 in 1946 to 1,110 in 1947. Of these cases, 792 were unmarried mothers and 318 married women. Amongst the 792 cases, 624 were first pregnancies and 168 were multiple cases. The number of illegitimate children born to unmarried women were somewhat fewer than in the previous year.

<i>Dealt with at :</i>	<i>First cases</i>	<i>Multiple cases</i>	<i>Married women</i>
Hope Lodge .....	41	—	—
Hostel .....	25	7	—
Lyncroft House .....	9	4	1
Woodville .....	20	—	—
Francis Way .....	20	—	—
Park Hill .....	6	—	—
Beechcroft .....	2	3	1
Birmingham Infirmary .....	17	20	15
Homes out of City .....	34	15	—
Own home except for confinement .....	311	76	204
Own home entirely .....	81	22	89
Returned to own country .....	15	3	1
Left City before confinement .....	20	7	1
Born out of City .....	23	11	6
Grand Total .....	624	168	318

35 cases — Mothers and babies still in the Homes .....	3·15%
45 cases — Babies have died and stillbirths .....	4·05%
131 cases — Babies have been adopted .....	11·81%
10 cases — Babies are with foster mothers .....	0·90%
33 cases — Mothers have married babies' fathers .....	2·97%
60 cases — Mothers and babies have left the City .....	5·41%
19 cases — Babies are in Homes without the mother .....	1·71%
777 cases — Mothers at home with their babies .....	70·00%

1,110



Home visits paid <i>re</i> unmarried mothers	.....	.....	.....	969
Special visits paid <i>re</i> unmarried mothers	.....	.....	.....	185
Cases visited in hospitals	....	.....	.....	522
Homes inspected <i>re</i> suitable lodgings with babies	.....	.....	.....	22
Special visits paid <i>re</i> V.D. cases, etc.	.....	.....	.....	26
Office interviews, applications	.....	.....	.....	946
Office interviews, other than applications	.....	.....	.....	3,433
V D. Office interviews	.....	.....	.....	60

*Girls under age of consent :*

14 years old	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
15 years old	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
16 years old	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
										<hr/> 16 <hr/>

Summary of the 168 multiple cases dealt with in 1947 (excluding married women )—

123 have other children in their care (36 of these have more than one child).

15 first child dead.

13 first child in home (resident nursery).

15 first child adopted.

2 first child adopted by grandparents.

Fifty-two of these cases were living with the putative father and 135 had been dealt with previously by the Department.

<i>Year</i>	<i>Total</i>	<i>Cases</i>								
	<i>Illegit.</i>	<i>dealt</i>								
	<i>imate</i>	<i>with by</i>								
	<i>Births</i>	<i>Dept.</i>	<i>2nd</i>	<i>3rd</i>	<i>4th</i>	<i>5th</i>	<i>6th</i>	<i>7th</i>	<i>8th</i>	<i>9th</i>
1947	1,310	1,110	123	28	7	3	3	2	2	—
1946	1,551	1,324	101	25	6	2	2	2	—	1
1945	1,841	1,543	95	28	2	3	1	2	2	—
1944	1,445	1,418	79	20	9	5	—	1	1	—
1943	1,163	1,078	54	15	8	2	1	—	—	—

The following table gives details of the cases among married women :—

Adopted	.....	.....	.....	.....	.....	.....	.....	.....	.....	47
Living with putative father	.....	.....	.....	.....	.....	.....	.....	.....	.....	85
Divorced	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
Husbands in Forces	.....	.....	.....	.....	.....	.....	.....	.....	.....	17
Apart from husband	.....	.....	.....	.....	.....	.....	.....	.....	.....	135
Widows	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
										<hr/> 318 <hr/>

There were 35 cases of venereal disease and they were dealt with at the appropriate clinics.

### Lodging Money Grant

The cases helped were either not eligible for the Homes or were unsuitable.

The amount spent was .....	£31 0 6
The amount refunded .....	— — —
Net cost .....	<u>£31 0 6</u>
The number of girls helped .....	14
Average cost per case .....	£2 4 4

### ADOPTIONS

First enquiries re adoption .....	480
Applications accepted by Public Health Dept. ....	317
Applications to Adoption Societies .....	56
Applications in respect of private arrangements :	
Direct placing .....	78
Third party .....	7
Foster children adopted by foster parents .....	21
Applications refused, referred elsewhere, or cancelled .....	163

### Children Placed in Homes by Public Health Department

First babies under six months .....	114
Illegitimate babies of married women .....	66
Children of a second or subsequent pregnancy .....	28
Older children .....	30
Foster children adopted by foster parents .....	21

#### Private Arrangements :

First babies of unmarried mothers under 6 months .....	46
Other children placed .....	39

Total Adoption Orders granted in the City .....	484
Number known to Public Health Department .....	392
(Approximately 81%).	

Orders granted by Courts outside City of Birmingham .....	28
---	----

Total Office Interviews .....	3,430
-------------------------------	-------

Total Visits .....	1,298
--------------------	-------

Attendances at Children's Court .....	86
---------------------------------------	----

Deaths : 1

Coroner's inquest. Verdict—inhalation asphyxia.  
This child was a private placing.

All children received a thorough medical examination before placement for adoption.

Total number examined	.....	.....	.....	.....	.....	357
Unfit for adoption.....	.....	.....	.....	.....	5	} 357
Healthy	.....	.....	.....	.....	242	
Minor defects	.....	.....	.....	.....	110	
Children reviewed from 1945 and 1946	.....	.....	.....	.....	.....	67
Foster children examined	.....	.....	.....	.....	.....	2

(1) *Considered unfit for adoption :*

- (1) Extensive atelectasis one lung (11/12). 5 cases, nevertheless adopted. Attends Birmingham Children's Hospital.
- (2) Coeliac disease. Nevertheless adopted. Relatives' child.
- (3) Sub-normal mentality. Remaining with foster mother.
- (4) Lesion of skin.
- (5) Very premature baby. Mother only 15, and poor family history.

(2) *Foster children examined :* 2 cases.

- (1) +ve Mantoux. Admitted to institution (Outside City case).
- (2) Sub-normal mentality.

(3) *Defects in children adopted :*

(a) Respiratory :		Bronchitis	.....	.....	.....	2
		Bronchitis with general debility	.....	.....	.....	1
		Otitis media	.....	.....	.....	3
		Enlarged tonsils and adenoids	.....	.....	.....	6
		Post pneumonia (X-ray)	.....	.....	.....	14
		Post measles debility	.....	.....	.....	1
		T.B. contacts	.....	.....	.....	2
(b) Blood and circulation :		Anaemia	.....	.....	.....	7
		Mild congenital heart	.....	.....	.....	2
		? Vena azygos lobe	.....	.....	.....	1
(c) Deficiency :		Mild rickets	.....	.....	.....	4
(d) Genito-urinary :		Hypospadias	.....	.....	.....	2
		One undesc. testicle	.....	.....	.....	1
		Pyuria	.....	.....	.....	2
(e) Congenital :		Bilateral branchial cleft	.....	.....	.....	1
		Bilateral cervical rib	.....	.....	.....	1
		Mild laryngeal stridor	.....	.....	.....	2
		Naevus	.....	.....	.....	1
		Syndactylism	.....	.....	.....	2
		Slight talipes, one foot	.....	.....	.....	1
(f) Miscellaneous :		Eczema	.....	.....	.....	1
		Impetigo	.....	.....	.....	1
		Urticaria	.....	.....	.....	1
		General debility	.....	.....	.....	7
		Strabismus	.....	.....	.....	2
		Exostosis 5th and 6th ribs	.....	.....	.....	1
		Enlarged thymus	.....	.....	.....	40
		Mediastinal glands	.....	.....	.....	1

Total defects	.....	.....	.....	.....	.....	110
---------------	-------	-------	-------	-------	-------	-----

(4) *Reviews from 1945 and 1946 :*

	No appreciable disease	Condition unchanged	Improved
47 Enlarged thymus .....	33	4	10
6 Post pneumonia .....	2	4	—
3 T.B. contacts .....	1	—	—
1 Lung fibrosis (unfit for adoption) .....	—	1	—
1 Genu valgum (attending Birmingham Children's Hospital) .....	—	1	—
1 General debility .....	1	—	—
1 Large abdomen .....	1	—	—
1 Large heart shadow .....	1	—	—
1 ? Juxta epiph. strain of shoulder joints .....	1	—	—
1 Irreg. : ossification fem. epiph. ? birth trauma .....	1	—	—
1 ? Coeliac disease .....	1	—	—
1 Large head .....	1	—	—
2 ? Sub-normal mentality .....	2	—	—

In addition a detailed medical certificate is required from all prospective adopting parents.

## CHILD LIFE PROTECTION

Foster mothers interviewed.....	149
Applications for foster mothers .....	36
Applications for foster children .....	452
Office interviews .....	2,429
Homes inspected and rejected .....	12
Homes registered .....	74
Foster children registered .....	107
Unnotified foster mothers .....	24
Routine visits .....	165
Special visits <i>re</i> foster children .....	518

*At the end of 1947, the figures were as follows :—*

Foster mothers on scheme .....	36	} 147
Foster mothers " non-scheme " .....	111	
Foster children on scheme .....	38	} 173
Foster children " non-scheme " .....	135	

*Total foster children dealt with during 1947 :*

Scheme .....	60	} 208
" Non-scheme " .....	148	
Illegitimate Scheme .....	52	} 134
" Non-scheme " .....	82	
Legitimate Scheme .....	8	} 74
" Non-scheme " .....	66	

*Foster children on Scheme who attained the age of 5 years .....* 5

*Foster children on Scheme who removed :*

Returned to parent .....	11	
Adopted .....	14	
Became non-scheme foster children .....	5	
Removed to institutions .....	3	1 Sanatoria. 1 Erdington (mental defect) 1 Middlemore Homes
Died .....	—	

*Foster children attaining the age of 9 years* ..... 4

Total payments to foster mothers .....	£1,552	11	0
Total payments by parents .....	£872	12	7
Cost to Public Health Department .....	£679	18	5
Average cost per child, per week .....		6	7

## CHILD HEALTH INSTITUTE

The following extract from the Annual Report of the Child Health Institute is of interest :—

The year under review has witnessed a consolidation and extension of the activities of the Institute.

### A. Undergraduate Teaching

The reason leading to the formation of the Birmingham Institute of Child Health was a desire to improve general medical standards in relation to the care of the child in health and in disease. It has been estimated that up to 50% of the practice of the average family doctor is concerned with children and therefore the necessity for General Practitioners to be well versed in the care of children, both in sickness and in health is very important. The future of the nation depends on raising the standards of health of the child and this can be best achieved by increasing undergraduate instruction. Medical students must receive a full and balanced training in order that their knowledge with regard to the nutrition and development of normal healthy children is on as high a level as their care and management of sick children.

The arrangements for such training in Birmingham University have been planned to make it as comprehensive as possible. During their three months' attendance at the Children's Hospital, students spend over a quarter of their time in the study of the healthy child, including instruction in methods of preventive medicine as applied to child health in the routine work of the Local Authority. They are given an opportunity to see for themselves from an administrative as well as a clinical angle how a modern Health Department discharges its duties and responsibilities as they relate to Child Welfare.



Visits are paid to ante-natal and child welfare clinics, to the Premature Baby Unit at Sorrento, to Day and Residential Nurseries, to the various activities of the School Medical Service, and to the Tuberculosis Department. Health Education and the scope and character of Health Visiting, together with the importance of a study of the home environment and economic standards, also receive emphasis. They obtain an insight into the work of the domiciliary midwifery service together with the arrangements for the care of the unmarried mother and the deprived child. It is considered that training on these lines will enable the general practitioner of the future to accept full responsibility for both the maintenance of health as well as the prevention and treatment of disease. By these means there will be attained a fusion of two health services which in the past have been separated and unco-ordinated.

### **B. Co-operation between Personnel of Local Authority and Children's Hospital**

This association between the child when well and the child when ill has been further strengthened by arrangements whereby the Children's Hospital Registrars have included in their duties, responsibilities for two sessions a week at the Local Authority Clinics and six Medical Officers from the Birmingham Local Authority attend the practice of the Hospital as Clinical Assistants on two half-days a week.

These arrangements have enabled the Hospital Medical Officers to have a first-hand practical knowledge and experience of the work of the Child Welfare Services and to emphasise its place, character and importance in the tutorial instruction given to medical students. Furthermore, this liaison with the Local Authority and Hospital Medical Officers has been mutually advantageous and in practice has worked smoothly and efficiently.

### **C. Postgraduate Training**

The importance of providing facilities for postgraduate training has been appreciated by the Institute since its formation. Broadly speaking, there are three types of postgraduate training : (1) for those doctors who intend to specialise in pædiatrics, (2) for general practitioners wishing to have their knowledge refreshed and brought up to date, and (3) for medical officers who wish to specialise in administration with special relation to child health and who, at the same time, desire to extend their clinical knowledge. It is necessary to provide different arrangements for these three groups. In general it has been realised that the opportunities and facilities for such postgraduate training in this country are still very limited in both scope and

character and the experience of the last twelve months has demonstrated the necessity for its extension. All the world over the importance of child health and welfare is being increasingly appreciated, and Institutes of Child Health must provide as complete and comprehensive a training as possible. This has been brought to notice by the number of applications received from postgraduate students, not only in this country, but also in the British Empire and many foreign countries in Europe and elsewhere. Many of these students are not only desirous of obtaining clinical instruction but also of receiving training in administration to enable them to organise Child Welfare departments in their own countries. During 1947 the Institute has been able to accommodate postgraduate students from: India, Palestine, Italy, Poland, Malta and South Africa. In addition foreign visitors who wished to be conversant with the functions, activities and administrative arrangements of the Birmingham Institute of Child Health, have included representatives from Egypt, Italy, Spain, Hungary, Czecho-Slovakia, Sweden, West Africa, Australia, Denmark, Malay States, Holland and Germany.

## BIRTH CONTROL CLINICS

	<i>Dudley Road Hospital</i>	<i>Selly Oak Hospital</i>
(1) Number of women seeking advice :		
(a) Married women suffering from gynaecological conditions, making pregnancy detrimental to health .....	28	41
(b) Married women suffering from other forms of sickness detrimental to them as mothers in that child-bearing is likely seriously to endanger life .....	19	63
(c) Other cases not coming within the categories authorised by the Ministry of Health .....	1	2
(2) Number of women advised in birth control methods .....	47	104
(3) Number in which birth control advice was given but pregnancy resulted .....	7	5

### *Notes on Birth Control Clinic at Dudley Road Hospital*

The total number of attendances at the Birth Control Clinic was 393, of which 47 were new cases accepted for advice.

Nine patients were advised on account of recent severe toxæmia or persistent hypertension ; six following complicated and operative confinements. Medical indications included five cases of pulmonary tuberculosis and eleven of rheumatic carditis.

Seven patients became pregnant during the year. Two had not attended for two years and had not been taking precautions. Four other patients had failed to follow advice. The three remaining cases appeared to be due to failure of the method, or of the patients' ability to carry it out.

In no case was termination of pregnancy advised.

#### *Notes on Birth Control Clinic at Selly Oak Hospital*

During the year 1947, there were 452 attendances at the Birth Control Clinic. Of these 343 were old patients attending for second or further visits. 109 women attended for the first time, and of these five were refused advice as they were not suffering from medical or other forms of sickness making pregnancy detrimental to their health.

Of the 104 new cases, 63 were suffering from medical sickness, and 31 from gynæcological or obstetrical conditions. Fifteen of these had toxæmia of pregnancy or eclampsia. In two cases, advice was given to mothers who had had infants dying of icterus gravis.

Pregnancy was known to have occurred in five women attending the Clinic. Two women had not been for over twelve months, one was very irregular in the follow-up attendances and did not follow instruction.

In two cases the women attended regularly and had apparently carried out the instructions given.

## SECTION C

### SANITARY CIRCUMSTANCES

#### Water Supply

No changes have occurred in the general water supply of the City, which has continued to be satisfactory, both from the point of quality and quantity. A constant supply of pure water is available from a network of distribution mains, and of the 288,847 dwelling houses in the City, 282,633 have an internal water supply.

The closest co-operation has been maintained with the Water Department in all aspects of the work undertaken by this Department throughout the year.

#### Routine Sampling of Corporation Water

Routine samples have continued to be taken from the Frankley and Whitacre undertakings and from the deep wells at Shortheath and Longbridge, the samples being submitted to bacteriological investigation and chemical analysis. At each weekly visit to Frankley and Whitacre, samples are taken from the raw water both before and after storage, and from the treated water after filtration and chlorination, special samples being also taken from the filter outlets, the storage reservoirs and the City levels. In this way the quality of the water supply is safeguarded at each stage of the purification process from the source of supply to the consumer.

The routine examination of samples taken from the water-works in the Elan Valley and from the aqueduct at Ludlow has continued and the total numbers of samples of Corporation water examined during 1947 were :—

Chemical	.....	.....	.....	.....	.....	.....	.....	.....	328
Bacteriological	.....	.....	.....	.....	.....	.....	.....	.....	602

Throughout the year, all samples of treated water leaving Frankley and Whitacre have, with one exception, been entirely satisfactory. The single exception occurred in July when a small number of B.coli (intermediate types) were found in the filtered water at Whitacre. Subsequent samples were completely normal, and there was no apparent cause for this slight degree of contamination.



The results of chemical analysis have been equally satisfactory, the average composition of the filtered water leaving Frankley and Whitacre being :—

<i>Parts per</i> 100,000	<i>Frankley</i>	<i>Whitacre</i>
Total solid matter .....	4.6	43
Free and saline ammonia .....	0.000	0.000
Albuminoid ammonia .....	0.002	0.002
Nitrogen as nitrates .....	0	0.20
Oxygen consumed in 3 hrs. at 27°C. ....	0.12	0.03
Chlorine in chlorides .....	0.9	3.5
Alkalinity as CaCO <sub>3</sub> .....	0.9	—
Hardness as CaCO <sub>3</sub> .....	2.2	21.0
pH .....	7.2	7.9
Erosion .....	11	—
Plumbo-solvency .....	0.12	—

The soft water obtained from the Elan Valley is liable to have a plumbo-solvent action and hydrated lime is added to the water at the Elan Valley Waterworks to the extent of 0.6 parts per 100,000.

### **Pollution of Bartley Reservoir by Seagulls.**

During February, the severe weather was responsible for driving seagulls inland, and the water in Bartley Reservoir showed definite evidence of pollution. Explosives were used to disperse them as in previous years, and the increase in chlorine to 0.5 p.p.m. was sufficient to maintain the quality of the filtered water. Seagulls returned to the reservoir for a short period in December.

### **Sampling of Well Water**

During the year 37 private wells were inspected, and 20 samples were submitted to bacteriological and 19 to chemical investigation. The well water was also sampled from three institutions under the control of the Health Committee, two of which lie outside the city boundary, 45 bacteriological and 21 chemical samples being submitted for examination. Owing to a deterioration in the quality of the water, the well at Rubery Mental Hospital ceased to be used for drinking purposes during the year.

### **Sanitary Inspection**

There were 129,113 visits made during the year by the staff of sanitary inspectors. Of this total 86,476 house inspections were made for various reasons, and investigations of infectious diseases and miscellaneous complaints caused 9,771 visits.

The summonses taken out during the year were as follows :

General nuisances .....	653
Dogs fouling footway .....	6
Disobeying Magistrates' Order .....	1
• Contravention of houses let in lodgings bye-laws .....	1
<b>TOTAL .....</b>	<b>661</b>

Magistrates' order was obtained in 207 instances.



## Squatters' Camps

There are 13 military camps in the City now occupied by squatters. The number of families residing therein varies from time to time, but is approximately 300. These huts are kept wind and weatherproof in accordance with instructions issued by the Ministry of Health. Water supplies have been maintained and sanitary conveniences kept in good repair.

When these huts were taken over by the department the risk of fire was very great, and fire precaution work has been carried out to lessen the risk as far as possible.

Periodical visits are made by the sanitary inspectors who advise the occupants on general camp hygiene and orders for any maintenance work necessary are sent to builders by the department.

## Section 59, Birmingham Corporation Act, 1946

Notices are served under this section on the persons responsible for the opening and cleansing of obstructed drains, calling upon them to remove any obstruction within 24 hours. If the Notice is not complied with within the time specified, the Corporation may carry out the work necessary to abate the nuisance and any expenses so incurred may be recovered from the person on whom the Notice was served.

Total number of Notices served during 1947	.....	.....	.....	2,817
Work carried out by owner in the time specified	.....	.....	.....	1,494
Orders given by Corporation to builders to carry out necessary work	.....	.....	.....	1,323

## Licences and Priority Certificates

All Statutory Notices require a licence where the cost of the work entailed is in excess of £10\*. Works are accordingly priced by the department and a licence issued for the necessary amount. Priority Certificates are issued in respect of controlled materials necessary to comply with Statutory Notices. Many applications have also been received from owners and builders in respect of repairs to property in the city which have not been the subject of a Statutory Notice, and where the cost of the work is less than £10\*. These have been checked by the sanitary inspectors and Certificates issued in appropriate cases.

Number of licences issued during 1947	.....	.....	.....	10,435
Total sums involved in licences issued	.....	.....	.....	£245,555
Number of Priority Certificates issued	.....	.....	.....	2,069

Since the 14th September, 1947, 465 permits to purchase timber have been approved and forwarded to the Timber Control for issue.

---

\*The limit of £10 was increased to £100 as from July 1st, 1948.

## Enforcement Section

In March, 1947, a special Enforcement Section was set up in the department to deal with summonses necessary as a result of non-compliance with Statutory Notices, and two sanitary inspectors are engaged full time in this work.

	<i>Summonses issued during 1947</i>	<i>Magistrates' Orders made during 1947</i>
1st April to 30th June .....	130	40
1st July to 30th September .....	216	62
1st October to 31st December .....	259	75
	<hr/> 605 <hr/>	<hr/> 177 <hr/>

The above figures relate to the actual number of summonses heard, and do not indicate the total number of adjourned hearings, which approximate to 40 per week.

When the Enforcement Section was inaugurated the Health Committee also decided to set up a Repairs Building Section, and this section has operated very successfully since September, 1947, in carrying out works where Magistrates' Orders have not received compliance. The average cost of these jobs is between £20 and £50. Works at higher cost have been carried out by contractors after the preparation of specifications and the obtaining of estimates which are duly approved by the Health Committee.

Section 275 of the Public Health Act, 1936, permits of the local authority carrying out works by agreement with owners. The desire of owners to use this section shows a decided increase, owing to the fact that owners have experienced great difficulty, through labour and material shortages, in finding builders to comply with Statutory Notices.

### *Magistrates' Orders in default :*

Executed by Repairs Section .....	68	Cost	£643 15 0
Executed by builders after tenders .....	27	„	£1,284 7 1

### *Works carried out at request of owners :*

By Repairs Section .....	6	Cost	£176 17 10
By builders after tender .....	26	„	£2,777 15 10

## Staff

The strength of the inspectorial staff at the beginning and at the end of the year was as follows :—

	<i>January</i> 1947	<i>December</i> 1947
Chief Sanitary Inspector .....	1	1
Deputy Chief Sanitary Inspector .....	1	1
Divisional Sanitary Inspectors .....	2	2
District Sanitary Inspectors .....	10	10
Rodent Control Officer .....	1	1
Assistant Rodent Control Officer .....	1	1
Water and Canal Boats Inspector .....	1	1
Assistant Sanitary Inspectors .....	13	26
Pupil Sanitary Inspectors .....	14	5
Enforcement Officer .....	—	1
Assistant to Enforcement Officer .....	—	1

Of the 14 Pupil Sanitary Inspectors on the staff on the 1st January, 1947, nine had obtained their certificate during the year.

## Special Inspectors

Staff at beginning and end of year :—

	<i>January</i> 1947	<i>December</i> 1947
Shop Inspectors.....	4	3
Factories Inspectors :		
Senior Inspector .....	1	1
Inspectors .....	4	3
Milk and Dairies Inspectors :		
Senior Inspectors .....	1	1
Inspectors .....	2	2
Assistant Inspectors .....	2	2
	<hr/> 14	<hr/> 12

## Offensive Trades

There was no cause to take special action in respect of premises registered for the carrying on of offensive trades during the year, to which sanitary inspectors made a total of 60 visits.

## Common Lodging Houses

At the end of the year there were thirteen registered common lodging houses in the City, affording accommodation for 744 males and 46 females. These premises have continued under regular supervision during the year.

Number of houses on register (for males only) .....	12
Number of houses on register (for females only) .....	1
Number of lodgers allowed .....	790
Number of visits .....	50

## Houses Let in Lodgings

At the end of the year there were 369 houses let in lodgings on the register, containing 2,465 rooms. They were let as follows :

Number of lets of single rooms	.....	.....	.....	949
Number of lets of two or more rooms together	.....	.....	.....	608
Certified accommodation (persons)	.....	.....	.....	4,249

There were 82 visits and 119 re-visits paid during the year.

## Tents, Vans and Sheds

Few complaints were received during the year concerning tents, vans and sheds, and these have been mostly dealt with by the City Surveyor under the Birmingham Corporation (General Powers) Act, 1929. Five visits were made by sanitary inspectors during the year.

## Canal Boats

The number of boats inspected on the canals within the City area was 851.

These boats were registered for the accommodation of 2,704½ persons, and when inspected were found to be carrying 685 men, 528 women and 728 children, represented in terms of adults as 1,577.

Of the 851 boats inspected during the year it was found that 743 or 87·3 per cent. were in good condition and conforming with the Act and Regulations, while in 108, or 12·7 per cent. of the total, various contraventions were found.

Complaint notes were duly served on the owners in all cases. There were 184 contraventions outstanding at the end of 1946, and a further 197 were found during 1947. Of these, 310 were remedied during the year, leaving 71 still outstanding at the end of December.

It has not been necessary during the year to take any Court proceedings under the Act or Regulations.

The number of canal boats on the Birmingham register at the end of 1947 was 600.

## Factories Act, 1937

The number of visits paid to factories with mechanical and non-mechanical power totalled 2,526. This number includes visits paid under Section 9 of the Factories Act, 1937, also advisory and routine visits in respect of work in progress as a result of the service of notices. The co-operation with H.M. Inspector of Factories has resulted in joint visits being paid to several industrial premises, to support where necessary applications made by the firms concerned for sanction to rebuild, or instal additional sanitary accommodation.

The survey of premises within the scope of the Factories Act, 1937 continues. The classification figures are as follows :—

Factories with no mechanical power	.....	.....	.....	.....	1,032
Factories with mechanical power	.....	.....	.....	.....	5,090

# **FACTORIES ACT, 1937.**

## **1. INSPECTIONS FOR PURPOSES OF PROVISIONS AS TO HEALTH (including inspections made by Sanitary Inspectors).**

<i>Premises</i> (1)	<i>Number on Register</i> (2)	<i>Number of</i>		
		<i>Inspections</i> (3)	<i>Written notices</i> (4)	<i>Occupiers prosecuted</i> (5)
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	1,031	152	24	—
(ii) Factories not included in (i) to which Section 7 applies : (a) Subject to the Local Authorities (Transfer of Enforcement) Order, 1938	1	1	—	—
(b) Others	5,090	2,286	270	—
(iii) Other premises under the Act (excluding out-workers' premises)	41	87	2	—
<b>TOTAL</b>	<b>6,163</b>	<b>2,526</b>	<b>296</b>	<b>—</b>



2.—CASES IN WHICH DEFECTS WERE FOUND.

<i>Particulars</i> (1)	<i>Number of Cases in which Defects were found</i>				<i>Number of cases in which prosecutions were instituted</i> (6)
	<i>Found</i> (2)	<i>Remedied</i> (3)	<i>To H.M. Inspector</i> (4)	<i>Referred By H.M. Inspector</i> (5)	
Want of cleanliness (S.1) .....	22	21	—	27	—
Overcrowding (S.2) .....	1	2	—	—	—
Unreasonable temperature (S.3) .....	2	—	—	—	—
Inadequate ventilation (S.4) .....	1	1	—	1	—
Ineffective drainage of floors (S.6) .....	—	1	—	—	—
Sanitary conveniences (S.7)					
(a) Insufficient .....	67	46	—	46	—
(b) Unsuitable or defective .....	533	417	—	258	—
(c) Not separate for sexes .....	44	33	—	27	—
Other offences (not including offences relating to homework) .....	4	3	4	1	—
TOTAL .....	674	524	4	360	—

**OUTWORK.** (Sections 110 and 111).

<i>Nature of Work</i>	<i>No. of out-workers in August list required by Sect. 110 (1) (c)</i>
Wearing apparel :	
Making, etc. ....	398
Furniture and upholstery ..	4
Electro-plate .....	64
Brass and Brass articles .....	311
The making of boxes or other receptacles or parts thereof made wholly or partially of paper .....	54
Brush making .....	42
Feather sorting .....	1
Carding, etc., of buttons, etc. ....	39
Stuffed toys .....	2
 TOTAL .....	 915

**Rodent Control**

Rodent control has continued on the general lines laid down in previous reports, the investigation of complaints, the maintenance treatment of the city sewers and the treatment of major infestations providing full time employment for a staff of 25, which includes two rodent officers, two Public Works Department sewermen and a clerk. In addition the Rodent Control Section undertakes the work for the Salvage, Public Works; Estates, Gas, Education and Parks Departments, both in institutions inside and outside the city.

**I. Complaints**

Complaints received during the year were 2,633, an increase of 716 compared with the previous year. All complaints were investigated, and treatments were given in 2,395 cases, of which 1,486 were domestic and 909 industrial premises. After treatment, 2,247 dead rats and 530 dead mice were picked up.

Domestic treatment has continued to be a free service while industrial premises have been charged on an approved scale.

**II. Sewer Treatment**

The regular maintenance treatment of the sewer system has continued, and two complete treatments have been given during the course of the year, involving between 600 and 700 miles of sewers.

A summary of the work carried out is as follows :—

Manholes on system	.....	.....	.....	.....	.....	.....	14,150
Manholes test baited	.....	.....	.....	.....	.....	.....	11,222
Manholes poisoned	.....	.....	.....	.....	.....	.....	11,222

<i>Materials used.</i>		<i>Tons</i>	<i>Cwts.</i>	<i>Lbs.</i>
Sausage rusk	.....	2	19	51
Zinc phosphide	.....	—	1	10

### III. Destructors

With the continued co-operation of the Salvage Department regular inspections of the five destructors have been carried out, though it was only found necessary to treat the Montague Street and Brookvale destructors during the year. The rat population at Tyseley, Rotton Park and Lifford has been minimal.

Montague Street destructor was closed for repair in July and the opportunity was taken to plan a wholesale clearance of the rodent population. Treatments were given in July and August, and it is estimated that between 9—10,000 rats were killed, the majority by poison, but about 500 being killed by hand during the turning over of salvaged material.

In October the Brookvale destructor was treated, with an estimated kill of over 6,000 rats. Re-inspection of the destructors showed that the number of rats remaining was extremely small, although owing to the food and cover available, it is practically impossible completely to free this class of premises from vermin.

The materials used in the treatment of the Montague Street and Brookvale destructors were :—

						<i>Cwts.</i>	<i>Lbs.</i>
Sausage rusk	.....	.....	.....	.....	.....	7	32
Zinc phosphide	.....	.....	.....	.....	.....	—	8½

During the year requests have been received from the Biology Sections of the University, Technical College and the Ministry of Food for live rats for experimental purposes, and in all cases the Section has been able to provide help in this direction.

### Supervision of Shops

At the beginning of the year a full staff of four whole-time Inspectors were available to carry out the work of inspection in relation to the under-mentioned legislation, but from 20th March the staff was reduced to three by the illness and untimely death of the Senior Shops Inspector, and this vacancy still remains unfilled.

Shops Act, 1912.

Shops Act, 1913.

Butchers' Closing Order, 1921.

Shops (Hours of Closing) Act, 1928.

Shops Act, 1934 (Employment of Young Persons, etc.).

Shops (Sunday Trading Restrictions) Act, 1936.

Shops Act, 1936.

Young Persons' Employment Act, 1938.

Defence Regulation 60 AB modifying the Shops (Hours of Closing) Act, 1928, was in operation from the beginning of the year until 1st March, and again from 2nd November until the end of the year.

The work of the Shops Act Inspectors during the year is summarised as follows :—

*General Inspections :*

Visits	.....	6,014
Re-visits	.....	5,253

*Special Visits :*

No. of streets patrolled by day (1912 Act)	.....	1,161
No. of streets patrolled by night (1928 Act)	.....	486
No. of streets patrolled by day (Sunday Trading Restriction Act, 1936)	.....	739
No. of streets patrolled by night (Defence Regulation 60 A.B.)	.....	311
Sunday visits (Sunday Trading Restriction Act)	.....	883
Visits, Jewish traders	.....	32
Visits, <i>re</i> closing and young persons' hours	.....	1,447
Appointments under various Acts	.....	115
Visits by night, Defence Regulation 60 A.B.	.....	534

OFFENCES REPORTED, ETC.

Early closing notices not exhibited (1912 Act)	.....	1,056
Assistants' weekly half holiday notices not exhibited (1912 Act)	.....	724
Sunday Trading Restriction Act notices not exhibited	.....	730
Exempted trade notices not exhibited (1912 Act)	.....	351
Not providing seats for female assistants (1912 Act)	.....	23
Not closing to time (half day), (1912 Act)	.....	148
Not closing to time (evenings), (1928 Act)	.....	24
Not closing to time (evenings), (Defence Regulation 60 A.B.)	.....	153
Not closing Sundays (Shops Act, 1936)	.....	23
Young persons notices not exhibited, Form H (1934 Act)	.....	503
Young persons notices not exhibited, Form F (1934 Act)	.....	529
Not exhibiting Form K (Seating Accommodation), (1934 Act)	.....	656
Young persons notices not exhibited, Form J (1934 Act)	.....	21
To provide W.C. accommodation (1934 Act)	.....	4
To provide suitable ventilation (1934 Act)	.....	3
To provide accommodation for meals (1934 Act)	.....	6
To provide washing facilities (1934 Act)	.....	1
To provide heating facilities	.....	7
Mess-rooms to be cleansed	.....	2
Nuisances reported	.....	215
Visits to work in progress	.....	125

During the year 144 warning letters were sent to shopkeepers contravening the Shops Acts, and in general these had the desired effect.



Legal proceedings were commenced in December against a firm of hair-dressers for failing to observe the weekly half-holiday provided by Section 4 of the Shops Act, 1912, in respect of two of their establishments, and a fine was imposed by the magistrates in each case.

Considerable difficulty was experienced during November and December, in enforcing Defence Regulation 60 AB, as during this period no Order was made by the local Shops Act Authority extending the war-time closing hours. The working of the shift system in factories, and the employment of large numbers of women in industry made the purchase of essential food stuffs a problem during the authorised hours, especially in the outlying areas of the City, and an effort was made by the Shops Act Inspectors to ensure that all general shopkeepers were fully aware of their duties under this Regulation.

### **Smoke Abatement**

A major qualification of a Smoke Inspector is that he should be competent to show the man on the firing floor the appropriate method of hand-firing to suit both the fuel available and existing furnace conditions. By demonstration of practical methods it can be shown that care and attention to the elementary principles of combustion result in the reduction of smoke emission to minimal and negligible proportions, and much of the Inspector's time is occupied in this way.

Several large firms have, during the year, converted coal-burning industrial plant to oil-fuel. Boiler-plant has mainly been concerned with such conversion, but a number of re-heating furnaces also have changed over, in view of the coal supply position.

Oil is an excellent smokeless fuel provided the stoker furnaceman controls the burner and air supply with due skill and attention. In unskilled or inefficient hands, however, the emission of dense black smoke is inevitable.

Another interesting development has been the application of chain-grate mechanical stokers to the Lancashire boilers at a large laundry. This plant has been burning fuel of a low calorific value and high ash content quite successfully with a minimal smoke haze at the chimney top.

Close co-operation exists between the departmental Inspectors and the regional fuel engineers of the Fuel Efficiency Section of the Ministry of Fuel and Power, whose aim it is to prevent waste of fuel in industry. As supplies become more plentiful, and the cleaning, grading and classification of fuel improve, the use of mechanical stokers, especially to small boiler plant, should be encouraged.

### **Fumes**

The complaints dealt with arose from various industrial processes such as cellulose and paint-spraying, sulphuric acid and caustic soda vats, hot-tinning processes and the mixing of ceiling-white. On inspection it was generally found that the outlet for fumes had been placed in a position



adjacent to dwelling houses and required the introduction of hoods, trunking and extractor fans to disperse the fumes at higher levels and away from living accommodation.

## Noise

Under the Birmingham Corporation Act, 1935, Section 58, limited powers are available in relation to noise abatement. Amongst the matters dealt with under this Section have been complaints from tenants of houses affected by noise, often associated with vibration, from the working of air-compressors, high speed extractor-fans, shaking-barrels and faulty gearing on rotary mixing machines. This inspectorial work is mainly of an advisory character, each case having to receive individual consideration. By discussion and co-operation with the various managements concerned, remedial measures have been adopted reducing to a considerable extent the recurrence of complaint.

## Swimming Baths

Close supervision of the following baths has been continued :—

Corporation swimming baths	.....	.....	.....	.....	.....	.....	24
Education Department Institutions	.....	.....	.....	.....	.....	.....	3
Private open air baths	.....	.....	.....	.....	.....	.....	1
Orphanage and school	.....	.....	.....	.....	.....	.....	1
Approved school	.....	.....	.....	.....	.....	.....	1

With regard to the Corporation baths, 200 bacteriological and 200 chemical samples were taken during the year and the results were generally very satisfactory. In 20 instances the total bacterial count was rather higher than usual, and in 7 cases *B.coli* were detected. These adverse results were in the majority of cases associated with a deficiency of free chlorine in the water, though in some instances the free chlorine was within the usually accepted limit of 0.2—0.5 p.p.m. Under the heavy bathing loads often associated with a large school class undergoing swimming instruction it seems doubtful whether these limits of free chlorine are sufficient to effect a rapid destruction of pathogenic organisms, and during the final months of the year a higher chlorine figure was maintained with very satisfactory results. The difficulty remains, however, of maintaining an adequate free chlorine level in a bath which takes on a variable bathing load throughout the day.

Samples from 5 baths in institutions (three educational, one orphanage and one approved school) were taken during the season and of the 17 bacteriological samples, 8 gave a high count, 6 showed the presence of *B.Coli* and 1 the presence of *B.lactis aerogenes*. All these adverse results were associated with inadequate chlorination in baths which still use the system of hand chlorination, an unsatisfactory method when the load of bathers is both intermittent and variable.

One bath belonging to a private firm was supervised at monthly intervals throughout the year, the results being very satisfactory.

## Louse Infestation

The numbers of cases treated at Bacchus Road Cleansing Station and Bromford Head Clinic are set out in the following table :—

	<i>Males</i>		<i>Females</i>		<i>Children</i>	
	<i>Head</i>	<i>Body</i>	<i>Head</i>	<i>Body</i>	<i>Head</i>	<i>Body</i>
	<i>Lice</i>	<i>Lice</i>	<i>Lice</i>	<i>Lice</i>	<i>Lice</i>	<i>Lice</i>
1944	3	468	182	54	—	—
1945	2	622	133	47	—	—
1946	1	574	120	42	62	34
1947	—	567	97	18	14	—

There is no really reliable method of estimating the degree of louse infestation in the adult population of the City. The cases treated at Cleansing Stations represent a selected population, many of them being drawn from the common lodging houses and night shelters, and a number of re-infestations occurred.

No changes were made in the methods used for the treatment of lousiness, which continued to give excellent results.

## Scabies

The number of treatments given at Scabies Centres showed a very marked decline during 1947, and only 7,432 cases were treated compared with 14,871 cases during 1946. The former figure gives an average weekly attendance of 143.

The Scabies Centres at Witton Isolation Hospital, Chequers Walk, Bromford and Stirchley were closed down during 1947, and four centres remained open at the end of the year.

The general arrangements for ascertainment, treatment and the following up of contacts have continued without any substantial alteration.

### TREATMENT OF SCABIES

<i>Clinic</i>	<i>Men</i>	<i>Women</i>	<i>Children</i>	<i>Total</i>
Bacchus Road .....	550	613	535	1,698
Floodgate Street	1,103	—	69	1,172
Sheep Street .....	—	1,020	861	1,881
Witton Isolation .....	118	157	126	401
<i>(Closed April, 1947)</i>				
Chequers Walk	—	91	78	169
<i>(Closed Feb., 1947)</i>				
Little Bromwich	271	533	581	1,385
Bromford .....	123	134	91	348
<i>(Closed July, 1947)</i>				
Stirchley .....	68	129	181	378
<i>(Closed July, 1947)</i>				
Total (1947) .....	2,233	2,677	2,522	7,432
Total (1946) .....	4,219	5,496	5,156	14,871
Total (1945) .....	3,852	6,570	6,140	16,562
Total (1944) .....	5,519	9,588	9,158	24,265

## Disinfection

The following table gives details of the work done during 1947 :

Houses disinfected after small pox	.....	.....	.....	6
Houses disinfected after scarlet fever	.....	.....	.....	—
Houses disinfected after diphtheria	.....	.....	.....	—
Houses disinfected after enteric fever	.....	.....	.....	1
Houses disinfected after tuberculosis	.....	.....	.....	1,459
Houses disinfected after cancer (on request)	.....	.....	.....	3
Houses disinfected after miscellaneous diseases (on request)	.....	.....	.....	1,087
Beds disinfected	.....	.....	.....	445
Miscellaneous articles of clothing and bedding disinfected	.....	.....	.....	25,310
Library books disinfected	.....	.....	.....	—
Public conveyances disinfected	.....	.....	.....	—

## SECTION D

### HOUSING

Whilst sound foundations have been laid during the year for the future improvement of housing conditions in the City, it is doubtful whether, on balance, the conditions at the end of the year can be said to be substantially better than at its beginning. The vigorous efforts towards improvement have necessarily been offset by the lack of a sufficiency of new houses, and the effects of the deterioration of existing property.

The greater part of the inner wards of the City consists of houses between 60 and 120 years old. Faults in original design and layout cannot be dealt with at present on a large scale, although there is scope for highly important minor improvements, in relation, for example, to the installation where necessary of a water supply.

While faults in design remain static, this cannot be said of condition. Maintenance work can go far towards arresting deterioration due to age; but if, as is only too often the case, it is neglected, the results are disastrous, affecting the occupants adversely and ultimately reducing the number of houses available. Reference to the particulars of Housing Act action set out on page 100 will show that 78 houses fell into such a state of dilapidation or structural insecurity that despite the acute housing shortage action had to be taken to deny further occupation.

The procedure for the service of Notices requiring the abatement of nuisances has been under review, and the difficulties arising from shortage of staff, of labour, and of materials, have been in a degree met by a revision of administrative practice, coupled with automatic enforcement action in the Courts or, alternatively, by default action.

The steps towards acceleration of the more urgent repairs by the definition of a schedule of defects, to be pressed for prompt completion, with postponement of requirements for the time being of less urgent items, did not allow for Notices requiring the installation of separate internal water supplies. This latter item was again reviewed later in the year, when it was decided that the ill effects of a lack of water supply justified resumption of action in this direction on a modified scale, to embrace some 1,000 properties per annum. This should enable this problem substantially to be cleared within a few years.

Within the Re-development Areas mentioned in detail on page 102 more effective control is possible, as it has become the policy of the Corporation to acquire within five years practically the whole of the dwelling-houses affected. Whilst acquisition is necessary as a prelude to the re-development, the actual clearance may have to be spread over a number of years, with the result that, pending such clearance, all the houses acquired are to receive at least that degree of beneficial management



which would be expected from a good owner. Included in the boundaries of the Re-development Areas are 2,858 occupied houses in respect of which official representations were made before the war, and it is intended that the whole of these shall be acquired, and therefore brought under Corporation control, within two years.

At the time of vesting or acquisition a schedule of repairs on a minimal scale is drawn up by the departmental housing staff. This schedule is related to the potential life of the property, when information on that point is available ; and it is passed to the Central Areas Management Department where it is accorded the same weight as a Nuisance Abatement Order. The schedule then forms the basis of a specification of works, being added to where justified by considerations of good management. Prices are then obtained and the work is put in hand. During the progress of this routine operation, which may take a month or two, urgent matters found on inspection are referred to the Central Areas Management Officer who takes any necessary steps immediately.

At this stage it is not intended that works of improvement in design or accommodation shall be carried out, save only by installation of water supplies and the provision of additional W.C.s in selected cases. As soon as the scheme has progressed sufficiently, and the supply position has eased, schemes of improvement are to be applied to all suitable houses with a sufficient potential life.

In view of the magnitude of the Re-development Areas, action as outlined cannot fail to have a beneficial effect on the housing situation in the City as a whole, and when general conditions permit it is likely to be followed by like action in respect of similar aggregations of property outside the ambit of the Re-development Schemes.

On the question of housing accommodation as a whole, the effects of the national situation have had a retarding effect on the production of new houses, but even so the progress made in the City has been considerable. The annual figures are quoted *in extenso* on page 99, but it may be noted that in the years 1945-1947 the number of new houses erected and houses re-built totalled 6,259, compared with 3,414 in 1919-1922.

During the year the entries in the application register of the Estates Department rose by 10,959 from 50,787 to 61,746, this despite the re-housing during the year of 3,591 cases, 2,445 of these being direct " lets " by the Estates Department. In his report of 28th July, 1947, the General Manager of the Estates Department analysed the application register and quoted that 52% of the applicants were married couples without children, living in rooms. It is to be assumed that many of these couples desire a house in order to establish a family.



### New Houses

During the year 1,493 traditional type houses were built, 826 by the Corporation and 667 by private enterprise. In addition 1,333 temporary bungalows were erected by the Government in pursuance of the National Scheme for meeting the immediate housing need. The work of re-building houses thrown out of use by war damage was actively pursued and during the year 354 houses were re-built under private enterprise and 111 by the Corporation. Accommodation has also been increased by the conversion of existing houses into flats and during the year private enterprise yielded 72 additional habitations, whilst the Corporation carried out conversions yielding 102 additional habitations of the class " B.2 " type.

I am indebted to the City Engineer and Surveyor for these figures and also for the fuller information covering the period since the end of the last war set out below :—

<i>Year</i>	<i>NUMBER OF HOUSES ERECTED</i>		<i>Government Temporary Bungalows</i>	<i>Total</i>
	<i>By Private enterprise</i>	<i>By the Corporation</i>		
1919 .....	29	—	—	29
1920 .....	244	553	—	797
1921 .....	426	970	—	1,396
1922 .....	382	810	—	1,192
1923 .....	556	1,621	—	2,177
1924 .....	1,201	2,004	—	3,205
1925 .....	1,774	3,215	—	4,989
1926 .....	1,775	5,159	—	6,934
1927 .....	2,445	4,007	—	6,452
1928 .....	1,487	3,505	—	4,992
1929 .....	2,456	4,359	—	6,815
1930 .....	1,738	6,687	—	8,425
1931 .....	1,983	3,893	—	5,876
1932 .....	2,159	1,703	—	3,862
1933 .....	3,028	2,029	—	5,057
1934 .....	4,226	837	—	5,063
1935 .....	6,265	985	—	7,250
1936 .....	6,926	2,285	—	9,211
1937 .....	7,662	2,643	—	10,305
1938 .....	7,804	3,003	—	10,807
1939 .....	5,178	1,413	—	6,591
1940 .....	1,183	302	—	1,485
1941 .....	181	10	—	191
1942 .....	26	63	—	89
1943 .....	5	35	—	40
1944 .....	37	2	—	39
1945 .....	25	6	325	356
1946 .....	550	413	1,475	2,438
1947 .....	667	826	1,333	2,826
	<u>62,418</u>	<u>53,338</u>	<u>3,133</u>	<u>118,889</u>

These figures do not include houses rebuilt after war damage nor flats provided by sub-division of larger houses.

## Housing Act, 1936

During the year no representations were made in respect of Clearance Areas, but further action in respect of all previously represented Clearance Areas lying within the boundaries of the areas covered by the Birmingham Central Re-development Order, 1946, will be in application of that Order. The vesting of all the houses thus affected will be accomplished in less than two years. In all 3,024 houses previously represented are at present standing, 2,858 of them still occupied.

Outside the boundaries of the Re-development Areas there are also a number of Clearance Areas where action was suspended before the orders had become operative. These include 408 houses at present standing, with 332 still occupied. Seven of these areas, covering 116 houses, 95 of which are occupied, are to be purchased by the Corporation under Part V of the Housing Act, 1936, compulsorily if necessary. Certain houses, to a total of 89, previously regarded as unfit for human habitation or included in Housing Compulsory Orders as "grey" properties, were re-occupied during the war years, after the execution of works on a limited scale, under the authority of apposite Ministry of Health circulars.

As soon as conditions permit, radical action with a view to clearance, will need to be taken in respect of the aggregations of unfit houses not covered by the Re-development Schemes. First attention will have then to be given to the areas previously represented, subject to fulfilment of the condition precedent to the operation of a Clearance Order or Housing Compulsory Purchase Order under the Housing Act, 1936, viz., the provision of accommodation equivalent to that demolished.

Individual action has continued to be restricted most severely, and in many of the cases taken the buildings were on the point of collapse or were totally unsuited to, and in some cases not intended for, occupation by human beings. The following table gives particulars of such action in its several categories :—

### *Proceedings under Sections 11 and 13 of the Housing Act, 1936.*

1. Number of dwellinghouses in respect of which official Representations were made .....	85
2. Number of dwellinghouses in respect of which undertakings under Section 11 (3) were accepted :	
(a) Not to use for human habitation .....	7
(b) To carry out works to render fit for human habitation .....	2
3. Number of dwellinghouses in respect of which Demolition Orders were made .....	56
4. Number of houses demolished in pursuance of Demolition Orders .....	69

*Proceedings under Section 12 of the Housing Act 1936.*

1.	Number of parts of buildings or separate tenements in respect of which official Representations were made.....	11
2.	Number of parts of buildings in respect of which Closing Orders were determined, the part of building having been rendered fit .....	1
3.	Number of parts of buildings or underground rooms in respect of which Closing Orders were made .....	15

At the close of the year 239 houses urgently represented as unfit for human habitation, were affected by non-user undertakings or by Closing Orders. These are visited periodically to ensure that the restriction on use is observed. Defence Regulation 68 A.A. authorises the issue of licences to enable houses on which Closing Orders or Demolition Orders were in operation to be used for human habitation despite the prohibition contained in Section 155 (3) of the Housing Act, 1936, provided that maintenance is continuously of a standard to satisfy the Local Authority. These licences are for 6 monthly periods, and are reviewed before renewal. Two houses were thus occupied at the end of the year. Under the authority of the Ministry of Health Circular 1,866 of 8th September, 1939, 23 houses remain in occupation despite the fact that action has been taken with a view to demolition or closure and orders made. These houses are inspected regularly to ensure that conditions are maintained at a proper level.

**Town and Country Planning Act, 1944. Re-development**

The application of the Corporation to the Minister of Town and Country Planning for confirmation of the " Birmingham (Central Re-development) Compulsory Purchase Order, 1946 " was dealt with at a Public Local Inquiry held in July, 1946, and has resulted in confirmation by the Minister of the Order sought, with exclusions either minor in character or agreed by the Corporation. The effect of this Order is that the Corporation now have power to acquire the whole of the properties mentioned therein and to undertake Re-development in an ordered manner. For convenience I set out in tabular form brief particulars of the five Areas referred to in the Order.

The Order was received under date 26th June, 1947, and by entry in the Local Lands Charges Register the date August 14th, 1947 was fixed as the date on which the condition of properties later to be vested would form the basis of any compensation ultimately to be paid. In respect of the bulk of the properties in the Areas the Order provides that the accelerated Vesting Procedure mentioned in the Town and Country Planning Act, may be applied, and the first Vesting Declaration, covering 322 dwelling-houses, was made on 31st October, 1947, while by the end of the year over 1,200 dwelling-houses within these Areas were already in the hands of the Corporation.

BULK PARTICULARS—BIRMINGHAM (CENTRAL RE-DEVELOPMENT) COMPULSORY PURCHASE ORDER, 1946.

		No. 1 Duddeston & Nechells	No. 2 Summer Lane	No. 3 Lady- wood	No. 4 Bath Row	No. 5 Gooch Street	Total
1.	Total number of dwellings (a) Normal houses ..... (b) Caretakers, etc. ....	5,284 68	8,694 197	7,174 127	4,249 68	4,125 94	29,526 554
2.	Gross area in acres .....	266·63	398·37	288·20	191·00	236·78	1,380·98
3.	Nett housing area in acres .....	135·7	180·5	127·0	87·4	110·7	641·3
4.	Density of houses per acre .....	38·9	48·2	56·4	48·6	37·3	46·0
5.	Population .....	17,610	27,611	18,787	12,185	13,809	90,002
6.	Number of persons per dwelling .....	3·3	3·1	2·6	2·8	3·3	3·0
7.	Number of cases of overcrowding .....	181	315	211	97	132	936
8.	Percentage of such cases to total houses .....	3·3	3·52	2·91	2·2	2·1	2·1
9.	Number of houses with two or more families .....	99	114	160	32	99	504
10.	Number of dwellinghouses regarded as unfit within the meaning of the Housing Act, 1936 .....	3,861	6,625	6,260	3,856	3,241	23,843
11.	Percentage of unfit houses to total number of houses .....	72·1	74·5	85·7	89·3	76·8	79·27
12.	Number of back-to-back houses .....	2,604	5,337	4,960	3,143	2,141	18,185
13.	Number of houses without separate water supply .....	1,154	1,148	540	386	651	3,879
14.	Number of houses without separate sanitary accommodation .....	3,332	5,169	5,272	3,290	2,758	19,821



## Housing Survey and Overcrowding

The results of the Housing Survey of Birmingham undertaken in 1946, and mentioned in my last Annual Report, were reported to the City Council on April 1st, 1947, when it was decided to refer them to the Public Works and Estates Committees for the purpose of their respective delegations. In the case of the Public Works Committee advantage was taken of the information given to relate the house building programme to the need for houses disclosed by the Survey, and within this need to the correct proportioning of houses with varying degrees of accommodation. In the case of the Estates Committee, the results were compared with the mass of information already in the possession of the Estates Department, and the Estates Committee joined with the Public Works Committee in recommending to the City Council that 25% of all new houses provided by the Public Works Committee should be allocated for the accommodation of persons to be displaced in the process of clearing portions of the Re-development Areas, the position to be reviewed early in 1948.

Abatement of overcrowding has occurred principally as a result of action by the Estates Department in allocating houses to families living in bad conditions, a high proportion of these being overcrowding.

During the year it became evident that the advantages accorded by relieving an overcrowded sub-tenant family in a larger house might be abused, in allowing of re-crowding by entry of another family intending later to apply for accommodation on the grounds of overcrowding. This position has been met by attaching a condition that points shall not be awarded to overcrowded cases unless the family concerned has been in residence under those conditions for at least two years. Further, notification of acceptance of an offer of other accommodation to an overcrowded family is followed up by a letter of warning to the principal tenant of the house concerned, pointing out that re-crowding would constitute a punishable breach of the relevant sections of the Housing Acts. This letter is followed up by subsequent inspections by officers of the Public Health Department. As a result, no re-crowding of this nature has since been found.

Certain provisions of the Housing Act relating to overcrowding are required to be printed on the rent book of a tenant and in the same manner the "permitted number" for the letting must be clearly shown. During the year applications for information as to permitted numbers were made by owners or agents in respect of some 5,000 houses; and there is every indication both that persons managing properties are aware of the provisions of the Housing Acts dealing with overcrowding, and also that there is every intention on their part to prevent overcrowding on letting a house or a part of a house.



Many applications have been received during the year from families seeking alternative accommodation, mainly on the grounds of overcrowding, illness, sanitary defects or a combination of these circumstances, with a request that their living conditions should be considered as special cases and take priority over the points scheme. In the comparatively small number in which this was confirmed, the full details, together with an appropriate recommendation, were passed to the Estates Department for their special consideration.

During the year 1,300 cases were thus investigated compared with 1,304 during 1946.

Special consideration has been given to the households of patients suffering from active and infectious pulmonary tuberculosis. Reference to this is made in the Section dealing with tuberculosis on page 161.

## SECTION E

### INSPECTION AND SUPERVISION OF FOOD

#### Food Premises

There are 832 "Eating Houses" registered under Section 54 (1) of the Birmingham Corporation Act, 1935. These include restaurants, cafes, snack bars, etc., but exclude clubs, licensed houses and other premises which are subject to inspection only.

Inspection under Section 13 of the Food and Drugs Act, 1938, is carried out by the District Inspectors. With the increase of trained inspectorial staff during the year, this work has been intensified.

Plans of extensions to premises are forwarded by the City Surveyor for consideration. This arrangement has led to the prevention of sanitary defects in many cases, and at the same time to a saving in cost to the occupier. The Department is in touch with the Food Executive Officer for similar consultation in respect of proposed new premises, in view of the prime importance of suitability of premises for such a purpose.

Efforts are made to promote a greater understanding of the need for hygienic practice amongst persons handling food. Plans have been prepared, moreover, for the launching in 1948 of an educational campaign throughout all sections of the food trade, in order that, by education of the food handler in particular, and of the public in general, the risks of infection from contaminated food and drink may be more fully recognised and eliminated.

#### Ice Cream

The Ice Cream (Heat Treatment, etc.), Regulations came into force on 1st May, 1947. The staff concerned have devoted much time to explanation and advice as to how the small manufacturer can best conform to the regulations. In spite of the difficulties of compliance, there has been general evidence of a desire on the part of the trade to co-operate.

The first and most obvious result of the regulations has been that the small manufacturer who had been persuaded previously to boil his "mix," was driven back to making a "cold-mix" because his business was too small to justify indicating and recording thermometers, etc. Experience has shown, however, that the regulations in respect of cooling can be readily complied with by the small manufacturer without the provision of additional apparatus. All "hot-mix" manufacturers have provided the necessary indicating thermometers and the majority have already ordered recording thermometers, in preparation for the day when their use becomes obligatory.

The detail of the Inspectors' work is as follows :—

Number of registered, unregistered and proposed ice cream manufacturing premises visited .....	326
Premises found unregistered .....	5
Premises unsuitable for manufacture .....	31
New premises erected .....	17
Premises in course of erection or awaiting sanction .....	8
Alterations to registered manufacturing premises .....	12
Alterations to unregistered manufacturing premises .....	6
Premises where sterilising facilities were required .....	12
Premises with minor sanitary defects .....	9
Samples taken for chemical analysis .....	42
Samples taken for bacteriological investigation .....	326

In a number of instances a recommendation for the erection of new and separate manufacturing premises has failed to gain the necessary building licence, and the would-be manufacturer has been obliged to sub-let his allocation of ingredients from the Ministry of Food and retail only the product of some other trader.

Fifty-seven manufacturers' licences were cancelled during the year, 28 ceasing to manufacture and sell, and 29 becoming retailers only.

One firm was prosecuted for manufacturing, and for selling, ice cream on unregistered premises.

The samples taken gave the following results :—

#### *Chemical Analysis*

<i>Fat %</i>	<i>No. of samples</i>	<i>Solids not fat %</i>	<i>No. of samples</i>
Less than 1 .....	9	Under 15 .....	1
1—2 .....	13	15—20 .....	3
2—4 .....	13	20—25 .....	19
4—8 .....	4	25—30 .....	15
8—10 .....	2	30—35 .....	4
Over 10 .....	1		

Thirty-nine out of 42 samples contained starch.

The low percentage of fat in the great majority of samples was due to dilution of the ingredients so as to make a greater quantity of ice cream available for sale.

The high percentage of starch serves to give body to the other ingredients and stiffen the much diluted mixture. It is to be noted that the addition of farinaceous matter by the manufacturer is permissible only in a mix subjected to heat treatment, whereas it would have to be present in the " Complete Cold Mix " supplied to the " cold mix " manufacturer.

#### *Bacteriological Examination—Methylene Blue Test*

Provisional Grade I .....	44.8%
II .....	25.1%
III .....	15.3%
IV .....	14.7%

Although about 30% of these samples failed to fall into Grades I and II, it is likely that failures were largely due to inexperience in sterilising equipment efficiently, and to the practice of switching off refrigerators overnight, thus allowing temperatures to rise above the 28°F. required by the regulations. Detailed investigations were made in every case and advice given until satisfactory samples were obtained. Another likely cause of failure is the fact that the most popular " cold-mix " is supplied only in tins containing 28 lbs. so that one tin may have to last for many weeks in the case of the small manufacturer.

## Milk and Dairies

	1945	1946	1947
Number of wholesale purveyors	63	61	59
Number of retail purveyors .....	161	139	136
Number of milkshops .....	1,772	85	76
Number of bottled milk purveyors	4,316	2,841	2,823

## Milk (Special Designations) Regulations, 1936-46

### *Principal Licences*

Producers of tuberculin tested milk .....	2
Dealers in tuberculin tested milk .....	26
Producers of accredited milk .....	15
Dealers in accredited milk .....	5
Producers of pasteurised milk (Holder process) .....	8
Producers of pasteurised milk (H.T.S.T. process) .....	6
Dealers in pasteurised milk .....	50

### *Supplementary Licences*

Dealers in tuberculin tested milk .....	8
Dealers in accredited milk .....	3
Dealers in pasteurised milk .....	3

TOTAL	126
-------	-----

One firm is in the process of changing over to the H.T.S.T. method of pasteurisation. Difficulty in obtaining materials and equipment continued, so that the alterations and improvements remained a problem. Worn-out plant cannot invariably be worked efficiently and this is reflected in the phosphatase test results. A good standard of milk sold was, however, maintained.

Routine inspection and sampling under the Milk and Dairies, and Milk (Special Designations) orders were carried out, and samples of milk sold in the City from plants approved by the Ministry of Food for the production of heat-treated milk were also taken throughout the year.

Seven hundred and twenty-two samples of designated milk were taken, 2.1% failing by reason of the presence of *B.coli*, and 3.3% failing in the methylene blue test. In the case of pasteurised milks 3.5% failed to pass the phosphatase test.



Fifty-nine complaints in respect of milk were received and investigated during the year, as compared with forty-four in 1946 and sixty-four in 1945. These were classified as follows :—

Dirty bottles and foreign matter in bottles	.....	.....	.....	.....	42
Souring	.....	.....	.....	.....	14
Overcooked sterilised	.....	.....	.....	.....	1
Vinegar fly infestation	.....	.....	.....	.....	2

The dirty bottle is thus again the chief cause for complaint. The trouble begins in the home, in the school and in the factory, for it is exceptional in any dairy to find a bottle which appears clean going into the bottle washer. In many the film of milk has dried on to the glass, and when the "empty" has been exposed to fouling by dust and by animals on the doorstep or at the road side as well, it is inevitable that mechanical washing, however well it may be supervised, must inevitably convey a number of doubtfuls to the bottle filler.

There is another factor, one which was noted a year ago, and persists to-day, e.g., the depositing of crates of empties at the side of the road for collection and return to the dairy later. Though most co-operative in every other aspect of milk production, the trade in general appears not to find it easy to give up a procedure which developed as a means of saving transport, but which is of sufficient prejudice to the production of clean milk to warrant its discontinuance. Souring must always be associated with dirty bottles, but the condition of samples of raw undesignated bottled milk, and of bulk tanker milk arriving at the larger dairies for processing, also leaves much to be desired. Results of their sampling were as follows :—

- (a) Of 31 samples of raw milk sampled during the months of November and December, 14 showed *B.coli* present in 1/100th cc. and 4 failed to pass the methylene blue test carried out as for accredited milk.
- (b) Over the year, 49 samples of bulk milk were taken on arrival at pasteurising establishments. Of these only 2 showed no *B.coli* in 1/100th c.c., while only 10 passed the methylene blue test carried out as for accredited milk.

## Synthetic Cream

Routine sampling of synthetic cream received at bakeries from the suppliers to the area showed the following results :—

<i>Bacterial</i>			<i>B.coli</i>	
<i>Count.</i>	<i>No.</i>		<i>present per 1 c.c.</i>	<i>No.</i>
Under 1,000	..... 58		Nil	..... 70
1,000 to 10,000	..... 11		Under 10	..... 2
10,000 to 100,000	..... 5		10 to 100	..... 1
100,000 to 500,000	..... 1		100 to 1,000	..... 2

No instance of infection was recorded as traceable to the consumption of contaminated synthetic cream.



## Inspection of Cows and Cowsheds

*Extracts from Report by MR. C. G. ALLEN, M.R.C.V.S., Chief Veterinary Officer.*

### *City Dairies*

The Milk and Dairies Orders require the registration of cow-keepers and enforcement of general requirements as to structure and cleanliness of cowsheds and precautions to be taken in connection with the milking of cows.

At the end of 1947 there were 39 dairy farms housing 691 milch cows in 96 registered sheds, *viz.* :—

Attested herds	.....	.....	.....	.....	.....	.....	.....	2
Tuberculin Tested herds	.....	.....	.....	.....	.....	.....	.....	1
Accredited herds	.....	.....	.....	.....	.....	.....	.....	14
Non-designated herds	.....	.....	.....	.....	.....	.....	.....	22

A monthly inspection has been made of all city cowsheds and dairy cows, and during the year 1,197 visits were made by veterinary inspectors.

### *Part IV. Agricultural Act, 1937.*

Veterinary inspections of City dairy herds were made on behalf of the Ministry of Agriculture and Fisheries, and certificates issued as follows :

<i>Accredited herds</i>	<i>Cows examined</i>
34	674
<i>Non-designated herds</i>	
31	394

### *Dairy Herds*

Despite shortage of labour, and other post-war difficulties, the health and cleanliness of the cows in the City dairies remains good. The cows are regularly examined, with a view to preventing danger to health from the sale of infected, contaminated or dirty milk, and in particular, for prohibiting the supply or sale of milk suspected of being infected with tuberculosis.

### *Mastitis*

During the year 65 cows were found to be affected with acute catarrhal mastitis, and the milk produced from these cows was prohibited from sale.

### *Tuberculosis*

In addition to the clinical examination of the dairy cows bulk samples of milk were taken from each City dairy herd during the year, and individual samples from suspected cows.

					Taken	Infected
Mixed samples from Dairy Herds	.....	.....	.....	.....	39	1
Individual samples	.....	.....	.....	.....	3	1

As a result of clinical examination, four cows affected with tuberculosis were removed from the City dairy herds during the year and dealt with under the Tuberculosis Order.

In addition, at the request of the Ministry of Agriculture and Fisheries, post mortem examinations were made on seventeen cows dealt with under the Tuberculosis Order and sent to the City Meat Market from farms outside the City.

### Inspection of Cowsheds

Regular inspection has been maintained of all registered cowsheds, attention being paid to the provisions of the Milk and Dairies Order for securing adequate lighting, ventilation and a clean water supply, also the cleansing of cowsheds and removal of dung and offensive matter.

In spite of labour shortage all cowsheds have been limewashed or sprayed with lime at least twice during the year.

### *Milk and Dairies (Consolidation) Act, 1915*

In connection with the ascertainment of the source of supply of milk, the consumption of which is likely to cause tuberculosis, notification under Section 4 of this Act was sent in 84 cases to the Medical Officer of Health for the county or county borough in which the cows yielding the milk were kept.

### Examination of Milk coming into the City from Outside Sources for the Presence of Tubercle Bacilli

The system is to sample each source of supply and samples are obtained at depots from raw milk before heat treatment.

Milk supplies are handled mainly by large milk depots. The following gives the approximate number of City milk depots and farmer producers supplying milk to the City from outside sources :—

<i>Depots</i>	<i>Farmer producers</i>
The three largest depots receive supplies from .....	approx. 1,980
Six City depots receive supplies from .....	approx. 900
The fourteen remaining depots receive supplies from .....	approx. 140
	<hr/>
	3,020
	<hr/>

During the year, owing to difficulties at the laboratory, we were able to submit two dozen samples only per week until during August, when we resumed the normal quota of four dozen samples per week.

The following return shows the number of samples of milk taken during 1947. Each sample represents the mixed milk of the cows of a single herd.

<i>Source</i>	<i>Samples taken at Depots, etc.</i>	<i>Samples infected</i>	<i>No. of T.B. Cows traced</i>
Derbyshire .....	25	1	—
Gloucestershire .....	17	—	—
Herefordshire .....	13	1	1
Leicestershire .....	57	4	5
Shropshire .....	162	9	9
Staffordshire .....	405	36	23
Warwickshire .....	707	27	27
Worcestershire .....	273	6	9
	<hr/> 1,659	<hr/> 84	<hr/> 74
City Dairies (Bulk) .....	39	1	—
City Dairies (Individual) .....	3	1	1
	<hr/> 1,701	<hr/> 86	<hr/> 75
Pasteurised (To test plant) .....	3	—	—
	<hr/> 1,704	<hr/> 86	<hr/> 75

As a direct result of sampling milk for the presence of tubercle bacilli, 75 cows giving tuberculous milk were removed during 1947 from dairy herds supplying milk to Birmingham.

At eleven farms the investigations had not been completed at the end of the year.

### *Comparative Return*

The following table shows the number of samples of milk sent in from outside sources, taken during the past ten years, and the percentages infected :—

<i>Year.</i>	<i>Samples Taken</i>	<i>Samples Infected</i>	<i>Percentage Infected</i>
1938 .....	2,386	208	8·7
1939 .....	1,867	173	9·3
1940 .....	2,237	244	10·9
1941 .....	2,377	189	8·0
1942 .....	2,408	182	7·5
1943 .....	2,456	146	5·9
1944 .....	2,434	138	5·7
1945 .....	2,396	122	5·1
1946 .....	2,232	128	5·7
1947 .....	1,659	84	5·1
AVERAGE FOR PERIOD .....	.....	.....	<hr/> 7·2

It will be seen from these figures that since 1938 the position has improved, the average percentage of infected milks for the past ten years being 7·2% and down to 5% for 1947. In a large measure this improvement can be attributed to dairy farmers, owing to food rationing difficulties, disposing of old and unprofitable cows for slaughter.

This is also revealed in the cattle slaughtered at the public abattoir. The percentage of the total number of cattle killed during 1947, found to be affected with tuberculosis was 33·4%, whereas the corresponding percentage for the year 1938 was 24·1%. This 9·3% increase is due to a greater percentage of low grade cattle received for slaughter than formerly.

### **Tuberculin Testing of Herds**

The following return gives the number of animals tested during the year :—

		<i>Tested</i>	<i>Passed</i>	<i>Failed</i>	<i>Commencement of Testing</i>
1	.....	151	151	—	3rd October, 1908
2	.....	81	81	—	3rd October, 1908
3	.....	65	65	—	1st January, 1934

### **Inspection of Meat and Other Foods.**

Under the Livestock (Restriction on Slaughtering) Order, 1940, the slaughtering of cattle, sheep and a certain number of pigs, carried out in Birmingham is concentrated at the Public Abattoir. In addition to that centre there are twelve private slaughterhouses attached to bacon factories in the City for the slaughter of pigs. Prior to the Ministry of Food's control of slaughtering there were 83 private slaughterhouses in use.

For the purposes of the inspection of meat in the Public Abattoir and in the bacon factories, there are employed five Veterinary Meat Inspectors and three Food Inspectors. The food inspection in the shops and food stores in the City is carried out by eight District Inspectors. There is also one Inspector employed in the Wholesale Fruit, Vegetable and Fish Markets.

Under the present procedure, whereby the Ministry of Food take control of slaughtering, the local authority continue meat inspection and inspection of slaughtering, as carried out prior to the change.

CARCASSES INSPECTED AND CONDEMNED

	CITY MEAT MARKET				BACON FACORIES
	Cattle	Calves	Sheep and Lambs	Pigs	
Number killed	43,600	66,277	111,174	5,167	22,982
Number inspected	43,600	66,277	50%	5,167	60%
<i>All diseases except Tuberculosis :</i>					
Whole carcasses condemned	112	676	129	39	14
Carcasses of which some part or organ was condemned	400	241	10,331	188	95
Percentage of the number killed affected with disease other than tuberculosis	1.2%	1.4%	9.8%	4.4%	0.5%
<i>Tuberculosis only :</i>					
Whole carcasses condemned	690	72	—	18	8
Carcasses of which some part or organ was condemned	13,897	31	—	408	1,233
Percentage of number killed affected with tuberculosis	33.4%	0.2%	—	8.2%	5.4%
TOTAL DISEASED 1947	34.6%	1.6%	9.8%	12.6%	5.9%
TOTAL DISEASED 1946	32.8%	1.4%	3.6%	12.2%	5.9%
TOTAL DISEASED 1945	32.9%	1.6%	1.1%	11.4%	6.2%

SHEEP : General shortage of livestock in country and shortage of feeding stuffs, and last winter's wastage due to severity of weather and to flooding, account for the rise in percentage of disease to 9.8. The rise in percentage is mostly due to an increase of parasitic disease in livers.



## Inspection of Meat, Fish and Other Foods at Corporation Hospitals, Institutions, Birmingham Restaurants, etc.

The premises visited include :—

Institutions, etc.	.....	.....	.....	.....	.....	.....	.....	36
School Meal Centres	.....	.....	.....	.....	.....	.....	.....	97
Birmingham Restaurants	.....	.....	.....	.....	.....	.....	.....	41
								174

1,853 visits of inspection were made during the year to the above premises. In cases where food supplies and storage conditions were found to be unsatisfactory at school meal centres, reports were sent to the School Meals Section, Civic Centre, and reports relating to food inspected at Birmingham Restaurants were sent to the Administrative Officer, Birmingham Restaurants Department, Civic Centre.

### Shellfish

During the year, 44 samples of mussels and 1 sample of oysters were taken for bacteriological examination. Of these, all proved satisfactory except 8 samples of mussels, as follows :—

One sample from an island off Argyllshire was found on arrival to be unfit for sale owing to the time taken in transit. This source of supply has been discontinued voluntarily.

Three unsatisfactory samples came from layings in the Menai Straits, and arrangements have been made by which mussels from approved beds in the Straits are not to be sent into the City unless they have undergone purification at the Fisheries Experimental Station at Conway.

Four unsatisfactory trial samples were received from an Eire source which, it appeared on investigation, was already subject to a local prohibition order by reason of lack of purification facilities. It was arranged that mussels from this source should not be accepted for sale.

No infection was traced to consumption of contaminated shellfish during the year.

### Registered Premises used for the Manufacture of Cooked and Potted Meats

Registration of premises which complied with the requirements of the Veterinary and Public Health Departments was carried out in 24 cases during 1947.

At the end of the year there were 264 food preparation premises on the register as follows :—

Sausages, cooked meat and pork pie manufacturers	.....	.....	.....	.....	.....	.....	.....	262
Jam manufacturers	.....	.....	.....	.....	.....	.....	.....	2
								264

4,212 visits of inspection were made.

Food and Drugs Act, Section 13

*Provisions as to rooms where Food intended for Sale is prepared or stored.*

To enable occupiers of shops to obtain paint, timber and other necessary material, for repairs and alterations, fourteen certificates have been issued, stating the requirements in each case.

The following retail food shops etc., were visited :

Beef and pork butchers	.....	.....	.....	.....	1,026
Grocers	.....	.....	.....	.....	1,534
Greengrocers	.....	.....	.....	.....	1,272
Hucksters	.....	.....	.....	.....	4,312
Fish Friers	.....	.....	.....	.....	425
Fishmongers	.....	.....	.....	.....	767
Horseflesh	.....	.....	.....	.....	2
TOTAL	.....	.....	.....	.....	9,338

Visits of inspection were paid by inspectors as follows :—

Slaughterhouses (Bacon Factories)	.....	.....	.....	.....	1,050
Food preparation premises	.....	.....	.....	.....	4,212
Fish friers	.....	.....	.....	.....	2,146
Beef and pork butchers	.....	.....	.....	.....	19,593
Grocers	.....	.....	.....	.....	5,280
Greengrocers and fishmongers	.....	.....	.....	.....	14,965
Hucksters	.....	.....	.....	.....	570
Ham and bacon curers	.....	.....	.....	.....	1,042
Street hawkers	.....	.....	.....	.....	17,275
Horseflesh	.....	.....	.....	.....	11
Cold stores	.....	.....	.....	.....	17,602
Other requests	.....	.....	.....	.....	2,831
Institutions, schools, etc.	.....	.....	.....	.....	1,853
					88,430

## SECTION F

### PREVALENCE OF, AND CONTROL OVER INFECTIOUS AND OTHER DISEASES

#### GENERAL

The mortality figures for 1947 are set out below and compared with the decennial (1937-1946) averages in the statement following :

<i>Disease</i>	<i>Number of deaths 1947</i>	<i>Yearly average No. of deaths 1937—1946</i>
Enteric fever .....	—	2
Smallpox .....	—	—
Measles .....	24	22
Scarlet fever .....	2	3
Whooping cough .....	31	54
Diphtheria .....	3	48
Pulmonary tuberculosis .....	691	726
Other forms of tuberculosis .....	57	78
Influenza .....	89	182
Cerebro-spinal fever .....	10	30
Poliomyelitis .....	11	2

The prevalence of the notifiable diseases is shown in the next table :

<i>Disease</i>	<i>Corrected Number of Cases 1947</i>	<i>Yearly Average No. of corrected notifications 1937—1946</i>
Enteric fever .....	9	30
Smallpox .....	1	—
Scarlet fever .....	1,407	1,873
Diphtheria .....	223	924
Erysipelas .....	286	419
Puerperal pyrexia .....	249	342
Ophthalmia neonatorum .....	818	999
Pulmonary tuberculosis .....	1,223	1,035
Other forms of tuberculosis .....	184	165
Acute primary or influenzal pneumonia .....	1,259	1,848
Cerebro-spinal fever .....	100	128
Acute poliomyelitis .....	172	15
Polioencephalitis .....	3	1
Encephalitis lethargica .....	7	8
Malaria .....	15	7
Dysentery .....	68	127

The cases of cerebro-spinal fever were 27 more than those of the previous year (100 against 73), and the deaths rose from 5 to 10.

Diphtheria was less prevalent than during 1946, the intermediate type predominating, with a fall in case mortality from 2·8 per cent. in 1946 to 1·3 per cent. in 1947.

Notifications of pulmonary tuberculosis increased by 88, non-pulmonary cases increased by 19, compared with 1946.

The apparent prevalence of "ophthalmia neonatorum" is illusory ; only a trivial proportion are due to gonococcal infection. The great majority represent merely a precautionary notification of even the slightest condition capable of coming within the elastic definition of ophthalmia of the newly-born.

### Enteric Fever

There were 17 cases notified as enteric fever, and of these 8 proved negative.

### Undulant Fever

Only one case of undulant fever came to the notice of the Department during the year.

### Glandular Fever

No cases of this disease came to the notice of the Department during the year 1947.

### Smallpox

There was one case of smallpox in the City during the year, in the person of a young man who came into contact with cases of smallpox in a neighbouring area. He had been vaccinated in infancy, and was re-vaccinated—though to all appearance unsuccessfully—on the day of contact. He developed a mild attack of smallpox with prodromal symptoms on the 8th and eruption, scanty in extent, on the 12th day.

### Vaccination

Following are tabulated statistics relating to this work for the current year, together with similar figures relating to each year since 1938.

	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938
Conscientious objectors										
per cent. of total births .....	17.3	18.9	19.6	20.3	18.9	21.2	22.6	27.5	31.2	31.8
Percentage of survivors										
Successful vaccinations .....	64.0	66.3	67.0	66.2	65.2	59.9	51.2	49.9	52.9	52.6
Insusceptible .....	0.5	0.5	0.5	0.6	0.9	0.6	0.8	0.4	0.5	0.6
Postponed by										
medical certificate .....	0.2	0.3	0.2	0.3	0.3	0.4	0.4	0.6	0.4	0.3
Removed .....	5.4	4.6	4.4	3.8	4.0	4.4	5.3	4.3	3.9	3.9
Lost sight of .....	1.8	2.1	1.8	1.9	2.9	3.8	7.4	5.0	3.5	3.2
Still under notice .....	10.1	6.4	5.7	6.0	6.8	8.5	10.9	10.9	6.1	5.9

### Measles

During the year 659 cases with a notified diagnosis of measles were admitted to Little Bromwich Hospital for treatment, and the total number of deaths was 24.

During the year 165 ampoules of measles immune serum were supplied to general practitioners and hospitals in the City. The 64 ampoules supplied to general practitioners were for prevention in 13 cases, and for

attenuation in 51 cases, and the majority of the 101 ampoules supplied to institutions were for the purpose of preventing an attack of measles in a child already in hospital suffering from some other disease.

### Scarlet Fever

The number of cases notified was 40 less than in 1946 ; and there were two deaths from this disease.

As in previous years, cases were treated in hospital where home conditions made this advisable ; otherwise they were treated at home.

The report on cases treated at the Infectious Diseases Hospital will be found on page 131.

### Whooping Cough

During the year 467 cases with a notified diagnosis of whooping cough were admitted to the Infectious Diseases Hospital, and the total number of deaths from this disease was 31.

Where appropriate the services of a district nurse are supplied under an arrangement made with the District Nursing Association.

### Diphtheria

The total number of cases notified was again markedly lower than in the previous year, and the cases confirmed in diagnosis also showed a considerable reduction, as did the case mortality :—

DIPHTHERIA CASE MORTALITY						<i>Case Mortality per cent.</i>
1901-10 (average)	....	....	....	....	....	14.1
1911-20	..	....	....	....	....	13.6
1921-30	..	....	....	....	....	5.8
1931-40	..	....	....	....	....	6.5
1936	....	....	....	....	....	5.5
1937	....	....	....	....	....	5.9
1938	....	....	....	....	....	6.5
1939	....	....	....	....	....	7.3
1940	....	....	....	....	....	6.0
1941	....	....	....	....	....	6.0
1942	....	....	....	....	....	4.2
1943	....	....	....	....	....	3.7
1944	....	....	....	....	....	2.7
1945	....	....	....	....	....	4.0
1946	....	....	....	....	....	2.8
1947	....	....	....	....	....	1.3

A report on the cases treated at the Infectious Diseases Hospital will be found on page 129.

### Diphtheria Anti-toxin

Diphtheria anti-toxin is distributed free of charge to medical practitioners for the treatment of their patients, and can be obtained from the Public Health Department, the Bacteriological Laboratory, and eighteen police stations.



## Immunisation against Diphtheria

The total number of children who received a full course of A.P.T. through the Public Health Department in 1947 was 20,084.

Children under 5 years of age immunised by the Public Health Department Staff.....	14,881	} Total under 5 years— 17,083	} Total 0-15 years of age 20,084
Children under 5 years of age immunised by general practitioners with material supplied free by the Public Health Department .....	2,202		
Children from 5 to 15 years of age immunised by the Public Health Department Staff .....	2,895	} Total 5-15 years : 3,001	
Children from 5 to 15 years of age immunised by general practitioners with material supplied free by the Public Health Department	106		

In addition 61 adolescents and adults were inoculated with T.A.F., mostly nursery staff, but including a few adults who were going to Europe or America.

14,546 supplementary doses of A.P.T., including 258 by general practitioners were given to children previously inoculated. Most of this work was carried out in the schools, the age grouping being as follows :—

Under 5 years of age .....	2,540
5-10 years of age .....	11,514
10-15 years of age .....	445
15 years of age and upwards (mainly nursery staff) .....	47

This supplementary dose is offered for children of all ages if the parents desire it, although the Department is concentrating on the children from 4 to 7 years of age. The major part of this work is still carried out in the Infant Departments of the schools, but the number of children of four to five years of age brought to Centres is steadily increasing.

Routine visits to child welfare centres, nurseries, nursery schools, primary schools and institutions were made and material supplied free of charge to general practitioners on request.

A table prepared annually of the percentage of immunised children from 8 months to 5 years of age in each health visiting district shows four centres with 80% to 90% immunised, fourteen centres with 70% to 80%, nine centres with 60% to 70%, and four centres with 50% to 60%, giving an immunisation total of 71.1% of the visited children. These figures are corrected for migrations and deaths and to a large extent for children coming into the City, as the immunisation history of such children is checked by enquiry from the district from which they have come ; but they do not cover all the pre-school children, since some are not visited, and some are in institutions.

It is estimated that 73.8% of the pre-school children have been inoculated, and some 95.2% of the children between 5 and 15 years of age. It is not possible to correct this latter group to any extent for migrations and deaths. These losses are, however, in all probability broadly balanced

by the children coming into the City who have already been immunised elsewhere.

The estimated percentage of immunised children 0—15 years of age is 82·7%.

It is the practice in Birmingham for each health visitor to be responsible for obtaining consents for immunisation on her own district, helped by special letters sent to the parents from the central office and by leaflets, talks, etc., at the Centres.

A regular immunisation session at fortnightly intervals at all Child Welfare Centres (except five small ones where the interval is four weeks), makes it easy for mothers to attend at a time and place convenient for themselves. They can attend with or without appointment and may, if they wish, bring children of school age for primary or supplementary treatment although, with the exception of newcomers to the City, there is little need for this, as the schools are visited at least once a year and nursery schools and classes as required.

There were 84 cases of diphtheria in inoculated children, the majority of them extremely mild; three received their inoculations outside Birmingham.

There were only three deaths registered as due to diphtheria in the year. Two of them were Birmingham children whose parents had persistently refused to have them immunised; the third was a child of fourteen months who had had a single injection of A.P.T. at the age of nine months. This child was sent to a hospital other than the infectious diseases hospital, on account of severe laryngitis, and died shortly after admission. There seems to be no satisfactory evidence that the case was one of laryngeal diphtheria as no membrane was present and the post mortem showed only fibrinous exudate on the false vocal chords. A profuse growth of staphylococci was cultured, but no diphtheria bacilli either before or after death.

If this death were excluded as being improbably one of diphtheria, 1947 would rank as the first year in the history of the city in which no pre-school child died from diphtheria.

The year 1947 represents the coming of age of the diphtheria prevention scheme; for while staff immunisation at Little Bromwich Hospital began in 1922, Schick testing and immunisation at various institutions in 1925, open clinics in the City were not started until April, 1926.

It was realised that a high proportion of the children particularly in the pre-school group must be immunised before a general fall in diphtheria could be expected. Up to the time that the Ministry of Health started the national publicity campaign for immunisation in 1940-41, some 50% of the Birmingham children had been immunised, the majority of them in the school age group.

Since then the proportions immunised in pre-school and school groups have risen steadily, and there has been, coincident with this a corresponding fall in the cases of deaths from diphtheria. This is shown in the two following tables.

TABLE 1.

ESTIMATED PERCENTAGE OF CHILD POPULATION IMMUNISED, IN AGE GROUPS.

<i>Year</i>	<i>0—5 years</i>	<i>5—15 years</i>	<i>0—15 years</i>
1938	33·3	45·9	41·9
1939	39·7	50·1	46·7
1940	44·4	53·6	50·7
1941	60·0	60·7	60·4
1942	64·9	72·7	70·0
1943	69·3	80·0	76·2
1944	75·5	85·8	82·2
1945	72·6	87·1	81·7
1946	69·2	91·1	82·5
1947	68·4	92·6	82·7

TABLE 2.

DIPHTHERIA CASES AND DEATHS

	<i>Under 5 years</i>		<i>5—10 years</i>		<i>10—15 years</i>		<i>Total under 15 years</i>	
	<i>Cases</i>	<i>Deaths</i>	<i>Cases</i>	<i>Deaths</i>	<i>Cases</i>	<i>Deaths</i>	<i>Cases</i>	<i>Deaths</i>
1926	464	47	677	52	274	12	1,415	111
1927	366	20	561	30	237	7	1,164	57
1928	346	26	640	32	257	6	1,243	64
1929	402	36	699	33	229	8	1,330	77
1930	423	38	660	28	294	7	1,377	73
1931	329	22	430	27	179	9	938	58
1932	179	15	219	15	87	2	485	32
1933	110	14	145	11	84	4	339	29
1934	303	33	415	38	143	8	861	79
1935	312	26	472	44	180	10	964	80
1936	312	27	542	34	124	1	978	62
1937	352	32	583	31	207	13	1,142	76
1938	251	23	416	29	203	9	870	61
1939	179	19	209	18	107	7	495	44
1940	218	25	258	17	165	8	641	50
1941	346	48	438	24	227	5	1,011	77
1942	245	16	383	24	218	6	846	46
1943	203	19	330	11	236	4	769	34
1944	151	11	193	3	144	2	488	16
1945	91	6	166	4	81	3	338	13
1946	74	5	95	2	79	1	248	8
1947	79	1	56	1	35	1	170	3

# DIPHTHERIA IN IMMUNISED AND NON-IMMUNISED CHILDREN

POPULATION AGED 0—15 YEARS, 1938—1947

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
IMMUNISED CHILDREN :										
	96,446	107,000	113,198	132,263	150,079	168,708	180,750	190,993	199,746	206,430
	41.9%	46.7%	50.7%	60.4%	70.0%	76.2%	82.2%	81.7%	82.5%	82.7%
	Diphtheria per 10,000 immunised children 0—15 years									
NON-IMMUNISED CHILDREN :										
	136,949	122,693	96,800	77,800	64,900	52,412	38,890	42,687	42,244	42,910
	58.1%	53.3%	49.3%	39.6%	30.0%	23.8%	17.8%	18.3%	17.5%	17.3%
	Diphtheria per 10,000 non-immunised children 0—15 years :									
Total Diphtheria per 10,000 children 0—15 years :										
	37	21	30	48	39	34.7	22.2	14.4	9.4	6.8
	2.5	1.9	2.5	3.7	2.1	1.5	0.68	0.55	0.28	0.11
	CASE RATE									
	DEATH RATE									

\* The figures are to be regarded as only approximate, in view of the difficulties of assessing the child population in these years.



The present relative infrequency of diphtheria seems unfortunately to be producing some apathy on the part of many parents ; and this may become a formidable difficulty in keeping up the level of immunised children. It is to be noted for instance, that during 1947 there was a fall to the extent of 1·2% in the proportion of immunised children aged eight months to five years of age.

Intensive and extensive education of parents continues therefore to be essential to ensure the maintenance of immunisation of the child population at a satisfactory level.

### **Dysentery**

Ninety-nine cases were notified during the year, and one revision of diagnosis from Poliomyelitis to dysentery gives a total of 100, and one revision, but on investigation 32 of these proved not to be dysentery, making a net total of 68 clinical cases.

### **Malaria**

Sixteen cases of malaria were reported during the year, all contracted abroad, and including some Service cases.

### **Food Poisoning**

During the year under review 55 cases of food poisoning were notified to the Department. The majority were of a trivial nature not calling for any specific action by the Public Health Department.

### **Acute Anterior Poliomyelitis**

The year 1947 was marked by a sharp rise in the number of cases of poliomyelitis, the City being involved in the widespread epidemic experienced throughout the whole country. The increase in prevalence may be measured by the fact that the average number of confirmed cases for the years 1944/45/46 was 18, while in 1947 the number rose to 166.

In all 323 notifications were received, but of these 157 were found not to be cases of poliomyelitis, while the remaining 166 cases were confirmed.

From the information available the cases occurring in the earlier stages of the epidemic appeared to be the more serious ; in that of the cases occurring by the end of July, 37 cases were confirmed, 7 of which proved fatal. Over the year as a whole, with its total of 166 confirmed cases, there were 14 deaths, giving a case mortality of 8·4%.



Of the total number of confirmed cases 58 were mild, showing no paralysis, 47 were notified with paralysis of only one site, while 57 were notified with multiple paralyses. Four cases were diagnosed as polio-encephalitis, two of these being fatal.

The distribution of the disease was general throughout the City. In only two instances was there more than 1 case in a household. In one of these, two cases in the household were confirmed, and both were of non-paralytic type. In the other instance, that of a husband and wife, the wife was notified first and found to have non-paralytic poliomyelitis, while the husband, notified 5 days later, died three days after admission to hospital. Their two children, aged 1 and 3 years, both escaped infection.

The following is a summary of the incidence from which it will be seen that while children and adolescents constituted the largest groups affected, there was a substantial incidence in young adults in both sexes ; while among males the fatal cases were confined to the group of young adults.

#### ACUTE POLIOMYELITIS. AGE INCIDENCE OF CASES AND OF DEATHS

##### MALES

0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
33	12	15	6	4	8	1	3	2	2
				2 deaths	5 deaths				

##### FEMALES

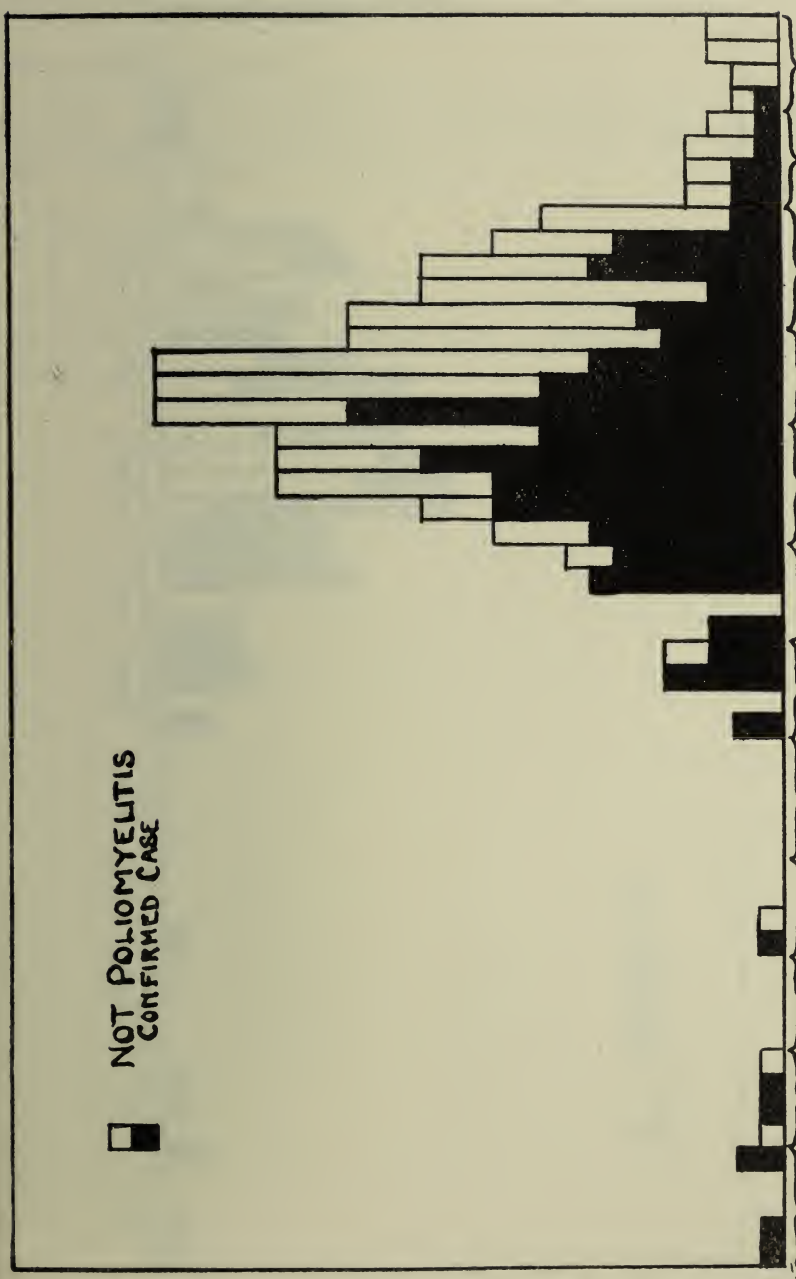
0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
21	20	6	6	9	10	1	6	1	-
1 death	3 deaths	1 death	1 death		1 death				

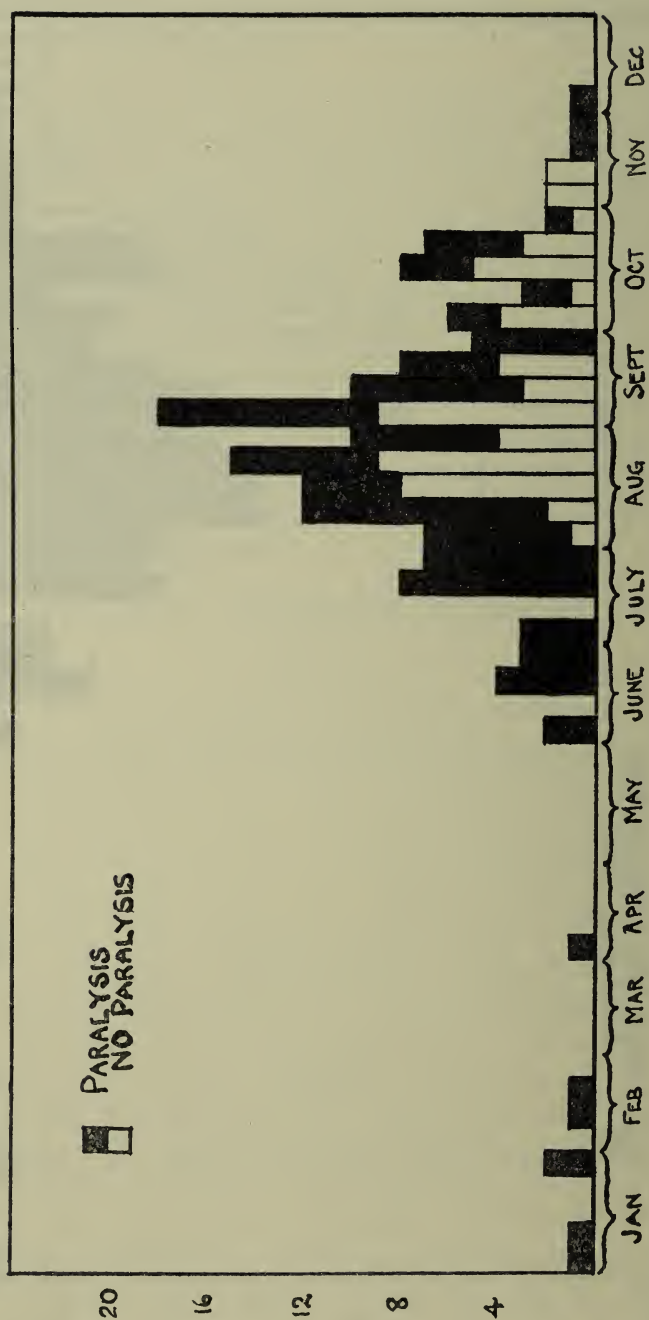
NOT POLIOMYELITIS  
CONFIRMED CASE



28  
24  
20  
16  
12  
8  
4

JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC





**Polioencephalitis**

Five cases of this disease were notified during the year, but only three of these were true cases of which two died.

**Encephalitis Lethargica**

During the year 12 cases were notified as suffering from encephalitis lethargica, of which only seven proved to be true cases. There were five deaths from this disease during the year.

**Cerebro-Spinal Fever**

There were 219 cases notified as cerebro-spinal fever during the year. In 119 cases the diagnosis was afterwards revised, leaving 100 clinical cases of this disease. Of the 100 actual cases, 10 succumbed to the attack, giving a case mortality rate of 10·0%.

<i>Age Distribution</i>						<i>Cases</i>
Under 1 year	.....	.....	.....	.....	.....	21
1 and 2 years	.....	.....	.....	.....	.....	13
3    „    4    „	.....	.....	.....	.....	.....	11
5 and under 10 years	.....	.....	.....	.....	.....	14
10    „    15    „	.....	.....	.....	.....	.....	11
15    „    20    „	.....	.....	.....	.....	.....	11
20    „    25    „	.....	.....	.....	.....	.....	3
25    „    35    „	.....	.....	.....	.....	.....	7
35    „    45    „	.....	.....	.....	.....	.....	4
45 years upwards	.....	.....	.....	.....	.....	5

# REPORT ON THE CITY INFECTIOUS DISEASES HOSPITALS FOR THE YEAR 1947

By DR. J. MCGARRITY, *Medical Superintendent*

## STATISTICS

### Little Bromwich Hospital

The total admission of all cases for the year 1947 was 3,814

#### (a) DIPHTHERIA

*Uncorrected  
for diagnosis*

In hospital on 31st December, 1946	63
Admitted	634
Discharged	633
Died	11
Remaining on the 31st December, 1947	53

#### (b) SCARLET FEVER

In hospital on 31st December, 1946	21
Admitted	366
Discharged	350
Died	1
Remaining on the 31st December, 1947	36

#### (c) MISCELLANEOUS

In hospital on 31st December, 1946	321
Admitted	2,814
Discharged	2,780
Died	165
Remaining on the 31st December, 1947	190

#### (d) MISCELLANEOUS (*Uncorrected for diagnosis*)

Chickenpox	100
Dysentery	76
Encephalitis	7
Enteric fever	18
Erysipelas	83
Gastro-enteritis	352
Measles	659
Meningitis	204
Miscellaneous	331
Mumps	35
Pemphigus	17
Pneumonia	27
Poliomyelitis	282
Puerperal fever	47
Rubella	95
Smallpox	3
Vincent's angina	10
Whooping cough	468

---

2,814



Diphtheria

During the year 634 cases were admitted to the hospital with the diagnosis of diphtheria. The diagnosis required revision in 444 cases. There was one case notified for observation which proved to be suffering from diphtheria, making the total number of cases of diphtheria treated in the wards during the year 191.

The revised diagnoses of 444 patients notified as diphtheria were as follows :—

Tonsillitis	.....	277
Laryngitis	.....	51
Scarlet fever	.....	26
Quinsy	.....	25
Vincent's angina	.....	17
Measles	.....	12
Bronchitis	.....	5
Retropharyngeal abscess	.....	3
Rhinitis	.....	3
Miscellaneous	.....	25
		<hr/>
		444
		<hr/>

The miscellaneous group consists of coryza (2), septic adenitis (2), broncho-pneumonia (2), secondary syphilis (2), pulmonary tuberculosis (2), no evidence of any disease (2), tonsillitis and carrier (1), whooping cough (1), Ludwig's angina (1), leukæmia (1), gastro-enteritis (1), mumps (1), stomatitis (1), lobar pneumonia (1), post-tonsillectomy (1), cardiac failure and bronchitis (1), otorrhœa (1), uræmia (1), poliomyelitis (1).

There were nine deaths among the revised group.

Table showing types of diphtheria :—

Faucial	.....	154
Faucial and nasal	.....	19
Nasal	.....	11
Laryngeal	.....	5
Faucial and laryngeal	.....	1
Faucial, nasal and laryngeal	.....	1
		<hr/>
		191
		<hr/>

There were two deaths from diphtheria. One occurred within 48 hours of admission on the sixth day of disease, the second died from diaphragmatic paralysis in the fifth week. In neither case was there previous immunisation.

Serum dosage administered :—

0—2,000 units	41 very mild cases
4,000—8,000 units	109 mild cases
9,000 or more units (intramuscular)	26 mod. severe cases
20,000 or more (intramuscular and intravenous)	13 severe cases
No serum	2
	<hr/> 191 <hr/>

Serum urticaria was observed in eleven cases and one had arthritis in addition.

Types of diphtheria organisms were obtained in 89 cases as follow :—

Gravis	35
Intermedius	47
Mitis	7

In 99 cases a history of immunisation was confirmed.

Post-diphtheritic paralysis occurred as follows :—

Palatal	26
Ocular	1
Pharyngeal	2
Cervical	6
Upper limb	1
Diaphragmatic	1
Peroneal	8
	<hr/> 45 <hr/>

The paralysis noted above occurred in 27 patients, one of which died. This gives a paralysis rate of 14·1%.

## Laryngeal Diphtheria

In no case of diphtheria involving the larynx was it necessary to interfere for the relief of obstruction.

Two cases of glottic oedema associated with streptococcal infection required intubation for relief of obstruction and one case with a para-pharyngeal abscess required tracheotomy. All three recovered.

Table showing age and sex of diphtheria patients :—

	Age Group 0-5	5-10	10-15	15-25	25-45	Over 45	Totals
Recovered :							
Males	40	24	7 (1 died)	7	4	1	83
Females	29	27 (1 died)	24	20	6	2	108
Totals	69	51	31	27	10	3	191

Hospital mortality 1·05%.

Scarlet Fever

During the year 366 cases were admitted with a notified diagnosis of scarlet fever ; of these 45 required revision of diagnosis :—

Dermatitis .....	1
Measles .....	7
Tonsillitis .....	6
Poliomyelitis and tonsillitis .....	1
Infective hepatitis .....	1
Pharyngitis .....	1
Erythema of unknown origin .....	9
Acute coryza .....	1
Rubella .....	7
Burns .....	1
Lobar pneumonia .....	3
Meningismus .....	1
Chickenpox .....	2
Sulpha drug rash .....	1
Appendicitis .....	1
No evidence of disease .....	2
	<hr/>
	45
	<hr/>

There were actually 372 true cases of scarlet fever treated in the wards during the year, including the following notified as :—

Tonsillitis and appendicitis .....	1
Tonsillitis .....	3
Sinusitis .....	1
Streptococcal septicaemia .....	1
Erysipelas .....	1
Chickenpox .....	1
Poliomyelitis .....	1
Diphtheria .....	26
Measles .....	9
Rubella .....	6
Gastro-enteritis .....	1
	<hr/>
	51
	<hr/>

Concurrent infections occurred in nine cases :—

Scarlet fever and measles	1
Scarlet fever and chickenpox	6
Scarlet fever and whooping cough	1
Scarlet fever and puerperal sepsis	1

The type of scarlet fever was very mild ; there was one septic case and one sub-toxic.

The principal complications were :—

Adenitis	21
Dysentery	1
Otitis media	19
Rhinitis	8
Abscess	5
Carditis	1
Mastoiditis	6
Arthritis	2
Tonsillitis	4
Septic spots	9
Bronchitis	6
Dermatitis	1
Nephritis	2
Rheumatism	1
	<hr/> 86 <hr/>

Anti-streptococcal serum was used in 251 cases ; serum and sulpho-  
namide in 81 cases ; serum and penicillin in 21 cases ; serum, penicillin  
and sulphonamide in seven cases ; sulphonamide in six cases ; and no  
specific treatment in six cases. Serum rashes occurred in 25 cases.

There was one death from scarlet fever, complicated by pneumonia  
and lung abscess.

Table showing age and sex of scarlet fever cases :—

Age Group	0-5	5-10	10-15	15-25	25-45	Over 45	Totals.
Recovered :							
Males	79	50	26	16	4	1	176
Females	64	64	30	21 (1 died)	15	2	196
Totals	143	114	56	37	19	3	372

Hospital Mortality 0.27%.

Measles

In all 659 patients were admitted with a notified diagnosis of measles, and of these 89 required revision of diagnosis as follow :—

Scarlet Fever	9
Rubella	30
Erythema of unknown origin	10
Sulphathiazole eruption	2
Meningitis	2
Whooping cough	2
No evidence of disease	7
Mumps	1
Sudamina	1
Dysentery	2
Gastro-enteritis	1
Mastoiditis	2
Otitis media	1
Laryngitis	2
Bronchitis	8
Broncho-pneumonia	(died) 1
Blepharitis	1
Bronchiectasis	1
Impetigo	1
Coryza	4
Feeding mismanagement	1
	<hr/> 89 <hr/>

Besides the 570 measles notified correctly, an additional 51 cases of measles were treated, having been notified as follow :—

Scarlet fever	7
Meningitis	2
Miscellaneous	11
Gastro-enteritis	2
Pneumonia	3
Diphtheria	12
Whooping cough	6
Rubella	8
	<hr/> 51 <hr/>

The total number of true measles was, therefore, 621.

Concurrent infections occurred as follow :—

Concurrent measles and chickenpox	4
"    "    "    dysentery	17
"    "    "    whooping cough	7
"    "    "    tuberculosis	2
"    "    "    rubella	3
"    "    "    scarlet fever	1
	<hr/> 34 <hr/>



The principal complications were as follow :—

	<i>Recovered</i>	<i>Died</i>
Broncho-pneumonia on admission .....	68	7
"          "      after admission .....	12	—
Otitis media on admission .....	27	
"      "      after admission .....	11	
Convulsions .....	1	
Laryngitis .....	25	
Bronchitis .....	20	
Enteritis .....	13	
Congenital heart .....	1	
Serum reaction .....	1	
Sulphathiazole eruption .....	1	
Stomatitis .....	4	
Blepharitis .....	2	
Dermatitis .....	13	
Appendicitis .....	5	
Nephritis .....	2	
Tonsillitis .....	16	
Rheumatism .....	3	
Sepsis .....	15	
Rhinitis .....	11	
Meningism .....	1	
Scalds, burns .....	4	
Bronchiectasis .....	1	
Tuberculosis .....	2	2
Encephalitis .....	1	—
	<u>260</u>	<u>9</u>

Ten deaths occurred among the measles cases, the causes of death being :—

Broncho-pneumonia .....	6
Pneumonia and purulent tracheo-bronchitis .....	1
Tuberculosis .....	2
Tracheitis and cardiac failure .....	1
	<u>10</u>

Table showing age and sex of measles patients :—

Age Group :	0-1	1-2	2-3	3-4	4-5	5-10	10-20	Over 20	Totals
Recovered :									
Males	38	91	73	40	23	52	1	6	324
Females	25	77	66	37	26	38	9	9	287
Died :									
Males	1	2	1	1	—	—	—	—	5
Females	—	3	1	1	—	—	—	—	5
Totals	64	173	141	79	49	90	10	15	621

Hospital mortality, 1.6%

# Whooping Cough

A total of 468 patients were admitted with a notified diagnosis of whooping cough, and of these 94 required revision thus :—

Bronchitis	.....	48
Broncho-pneumonia	.....	10 (2 died)
No evidence of disease	.....	14
Measles	.....	6
Enteritis	.....	4
Laryngitis	.....	2
Otitis media	.....	2
Miscellaneous	.....	2
Chickenpox	.....	2
Pulmonary tuberculosis	.....	2
Rubella	.....	1
Pneumococcal empyema	.....	1
Total		94

Actually 384 cases of whooping cough were treated in the wards, including those notified as :—

Pneumonia	.....	3
Measles	.....	3
Meningitis	.....	3
Diphtheria	.....	1
Total		10

Concurrent infections occurred as follow :—

Whooping cough and measles	.....	16
"    "    "    chickenpox	.....	6
"    "    "    scarlet fever	.....	1
"    "    "    otitis media	.....	1
"    "    "    dysentery	.....	1
"    "    "    rubella	.....	1
		26

The principal complications were as follow :—

	<i>In patients who recovered</i>	<i>In patients who died</i>
Broncho-pneumonia .....	62	10
Bronchitis .....	1	—
Gastro-enteritis .....	5	2
Convulsions .....	6	—
Otitis media .....	6	—
Tuberculosis .....	1	1
Miscellaneous .....	14	—
Spina bifida .....	—	1
Vaccinia .....	—	1
Measles .....	9	—
	<hr/> 104	<hr/> 15

Of those who recovered the complications in thirteen cases occurred after admission.

Amongst the whooping cough patients twenty-three deaths occurred :

Whooping cough and broncho-pneumonia .....	16
"    "    "    gastro-enteritis .....	4
"    "    "    tuberculosis .....	1
"    "    "    spina bifida .....	1
"    "    "    vaccinia .....	1
	<hr/> 23

Table showing age and sex of whooping cough patients :—

	Age Group	0-1	1-2	2-3	3-4	4-5	5-10	Over 10	Totals
<hr/>									
Recovered :									
Males	31	34	33	27	16	16	—		157
Females	56	46	46	24	14	17	1		204
Died :									
Males	11	1	1	—	—	—	—		13
Females	5	3	1	1	—	—	—		10
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Totals	103	84	81	52	30	33	1		384

Mortality : 6.0%.

## Cerebro-Spinal Meningitis

The total number of notified cases of meningitis admitted to the wards was 204, but of these 170 required revision of diagnosis :—

Influenzal meningitis .....	2
Pneumococcal meningitis .....	3 (1 died)
Tuberculous meningitis .....	13 (all died)
Benign lymphocytic meningitis .....	3
Poliomyelitis .....	19
Meningitis (no organism found) .....	1
Tetanus .....	1 (died)
Common cold .....	6
Influenza .....	4
Constipation .....	7
Broncho-pneumonia .....	7
Lobar pneumonia .....	12
Tonsillitis .....	16
No evidence of disease .....	12
Measles .....	2
Acute bronchitis .....	5 (1 died)
Acute nephritis .....	2 (1 died)
Erythema of unknown origin .....	1
Cerebral thrombosis .....	4 (2 died)
Temporo sphenoidal abscess .....	1 (died)
Subarachnoid haemorrhage .....	4 (1 died)
Gastro-enteritis and dysentery .....	6
Otitis media .....	4
Whooping cough .....	2
Cervical adenitis .....	1
Streptococcal meningitis .....	3 (1 died)
Fibrositis of neck .....	1
Concussion .....	1
Meningismus .....	8
Laryngitis .....	1
Osteomyelitis .....	1
Post-epileptic state .....	3
Headache .....	1
Sinusitis .....	3
Tuberculoma .....	1
Pyrexia of unknown origin .....	2
Petit mal .....	1
Hydrocephalus .....	2 (1 died)
Teething .....	1
Dermatitis .....	1
Dementia .....	1
Staphylococcal septicaemia .....	1

The actual number of cases treated was 37, which included :—

Notified as poliomyelitis	1
Notified for observation	2 (1 died)

The chief complications were :

Paresis	2
Broncho-pneumonia	1
Otitis media	2
Deafness	1
Squint	1
	<hr/>
	7
	<hr/>

No. of deaths : 3

Mortality : 8.1%

## Gastro-enteritis and Dysentery

The total number of cases treated was 394. There were 428 cases notified as gastro-enteritis and dysentery and of these 66 required revision of diagnosis.

Included in the total of 394 were the following revised to gastro-enteritis :—

Notified for observation	8 (2 died)
Notified as meningitis	6 (2 died)
„ „ whooping cough	5 (1 died)
„ „ enteric fever	4
„ „ diphtheria	1 (died)
„ „ pneumonia	1
„ „ measles	1 (died)
	<hr/>
	26
	<hr/>

The following were revised to dysentery :—

Notified for observation	1
Notified as measles	2
„ „ enteric fever	1
„ „ poliomyelitis	2
	<hr/>
	6
	<hr/>



In the 66 cases in which no evidence of gastro-enteritis or dysentery could be found the following diagnoses were made :—

Anaemia haemolytica .....	1
Appendicitis .....	3
Bronchitis .....	3
Constipation .....	2
Dermatitis .....	1
Feeding upset .....	5
Henoch's purpura .....	1
Intussusception .....	4
Measles .....	2
Meningitis .....	1
No evidence of any disease .....	19
Peptic ulcer .....	1
Pneumonia .....	6
Pyelonephritis .....	1
Pyloric stenosis .....	2
Otitis media .....	2
Rubella .....	1
Salpingitis .....	2
Senility .....	1
Typhoid .....	1
T.B. peritonitis .....	1
Tonsillitis .....	1
Thyrotoxicosis .....	1
Ulcerative colitis .....	1
Whooping cough .....	1
Carcinoma of large intestine .....	2
	<hr/>
	66
	<hr/>

The principal complications were :—

Otitis media .....	10
Broncho-pneumonia .....	7
Dermatitis .....	3
Abscesses .....	4
Bronchitis .....	4

Below is appended the principal sub-divisions into which dysentery fell according to the organism responsible. B.Morgani and B.Paracolon have been treated as one, as the pathogenic significance of these organisms is doubtful and their presence may possibly indicate some more toxic organism not actually isolated.

	<i>Gastro-enteritis</i> <i>Recov- Mor-</i> <i>ered Died</i> tality		<i>Shigella Sonne</i> <i>Recov- Mor-</i> <i>ered Died</i> tality		<i>Shigella Flexner</i> <i>Recov- Mor-</i> <i>ered Died</i> tality		<i>Salmonella</i> <i>Typhimurium</i> <i>Recov- Mor-</i> <i>ered Died</i> tality		<i>B. Morgani and</i> <i>B. Paracolon</i> <i>Recov- Mor-</i> <i>ered Died</i> tality			
<i>Age Groups</i>												
0—6 months	87	25	28.7%	1	—	—	8	1	12.5%	35	5	14.3%
6—12 months	29	13	44.8%	2	—	—	2	1	50.0%	11	4	36.4%
1—2 years	38	2	5.3%	19	—	—	4	—	—	15	2	13.3%
2—3 years	8	—	—	10	—	—	1	—	—	2	—	—
3—5 years	11	—	—	3	—	—	2	—	—	2	—	—
5—10 years	7	—	—	1	—	—	1	—	—	2	—	—
10 years and over	23	—	—	3	—	—	1	—	—	7	—	—
TOTALS	203	40	19.7%	39	—	—	2	2	8.3%	74	11	14.9%

Miscellaneous Observations

There were 331 cases admitted to the wards for observation, the final diagnosis being :—

Gastro-enteritis and dysentery	11
Scarlet fever	5
Tonsillitis	80 (1 died, congestive cardiac failure)
Babies accompanying mothers	51
Mothers accompanying babies	22
Diphtheria	1
Broncho-pneumonia	2
Poliomyelitis	2
Rubella	1
Measles	11
Puerperal conditions	8
Meningococcal septicaemia	2 (1 died)
Tuberculosis	2 (1 died)
Appendicitis	3
Vincent's angina	1
Whooping cough	1
Catarrhal jaundice	6
No evidence of disease	10
Quinsy	45
Dermatitis	4
Influenza	3
Stomatitis	13
Bronchitis	4
Erythema nodosum	2
Cellulitis	2
Fibrositis	2
Constipation	2
Chickenpox	2
Mumps	1
Miscellaneous	32
	<hr/> 331 <hr/>

Erysipelas

Of the 83 cases notified as erysipelas nine required revision of diagnosis as follow :—

Orbital bruising and conjunctivitis	1
Blepharitis and orbital cellulitis	1
Herpes	3
Submandibular abscess	1
Toxic scarlet fever	1
Inflammation of foot	1
No evidence of disease	1
	<hr/> 9 <hr/>

The number of cases treated in the wards was 76. The site of the erysipelas was as follows :—

Face .....	58
Limbs .....	15
Trunk .....	3
	<hr/>
	76
	<hr/>

The principal complications occurred as follow :—

Abscesses .....	1
Blepharitis .....	1
Adenitis .....	3
Bronchitis .....	3
Cellulitis .....	1
Otitis media .....	4
Septicaemia .....	1
Sulphonamide rash .....	1
Relapse .....	1
Serum reaction .....	2
	<hr/>
	18
	<hr/>

Of the total, 52 patients were treated with serum and sulphonamide, 2 with serum, 3 with serum and penicillin, 17 with serum, penicillin and sulphonamide, and 2 with sulphonamide.

Table showing age and sex of erysipelas patients :—

Age group	0-5	5-10	10-15	15-25	25-45	Over 45	Total
<hr/>							
Recovered :							
Males	4	—	1	1	10	6	22
Females	4	—	2	—	15	30	51
	<hr/>						
Totals	8	—	3	1	25	36	73
	<hr/>						

There were three deaths in females over 45 years.

Hospital mortality 4.1%

## Chickenpox

There were 100 cases notified as chickenpox of which 11 required revision of diagnosis :—

Septic spots .....	3
Insect bites .....	1
Bronchitis .....	1
Dermatitis .....	4
Urticaria .....	1
Scarlet fever .....	1
	<hr/>
	11
	<hr/>

Actually 94 cases were treated, including one notified as measles : one notified as smallpox, two notified as whooping cough and one notified as scarlet fever.

Concurrent infections occurred as follow :—

Dysentery	.....	1
Measles	.....	3
Pneumococcal meningitis	.....	1
Scarlet fever	.....	1
		<hr/>
		6
		<hr/>

There were no deaths.

## Enteric Fever

There were eighteen cases notified as enteric fever and of these eleven required revision of diagnosis as follow :—

Salmonella dysentery	.....	1
Enteritis	.....	4
Constipation	.....	1
Typhoid contact	.....	1
Pneumonia	.....	1
Hypochromic anaemia	.....	1
Macular erythema of unknown origin	.....	1
No evidence of disease	.....	1
		<hr/>
		11
		<hr/>

The actual number of cases treated was eight, including one notified as gastro-enteritis.

The organisms found were all B.typhosus.

The treatment given for four of the eight cases was sulphonamide and penicillin, for one case sulphonamide and in three cases no specific treatment was necessary. There were no deaths.

## Mumps

Altogether there were thirty-five notified cases of mumps of which seven required revision :—

Eclampsia	.....	1
Tonsillitis	.....	1
Cervical adenitis	.....	1
Septic parotitis	.....	1
Infected insect bites	.....	1
Bilateral submandibular abscesses	.....	1
No evidence of disease	.....	1
		<hr/>
		7
		<hr/>



Actually there were thirty true cases of mumps including :—

Notified as diphtheria .....	1
"    "    poliomyelitis .....	1
	<hr/>
	2
	<hr/>

There were no deaths.

## Pemphigus

There were seventeen cases notified as suffering from pemphigus of which seven required revision of diagnosis :—

Furuncular lesions .....	1
Dermatitis .....	1
Gastro-enteritis .....	1
Excoriation of buttocks and abdomen .....	1
Septic skin lesions .....	2
Septic skin lesions and right otitis media .....	1
	<hr/>
	7
	<hr/>

There were ten true cases of pemphigus. There were no deaths.

## Poliomyelitis

As a result of the epidemic of infantile paralysis 282 cases were admitted to the hospital with a diagnosis of poliomyelitis or suspected poliomyelitis. Of these 155 required revision of diagnosis. There were in addition 22 cases admitted with a notification of some other disease (nineteen meningitis), which proved to be cases of polioymelitis. This makes 149 cases of true poliomyelitis treated in the wards. 122 of these were admitted during the ten-week period 15th July to the 30th September.

The corrected diagnosis of the 155 cases which required revision were as follow :—

No evidence of any disease .....	55
Tonsillitis .....	19
Rheumatic fever .....	8
Lobar pneumonia .....	7
Bronchitis .....	7
T.B. meningitis .....	6
Pyrexia of unknown origin .....	5
Osteomyelitis .....	4
Meningismus .....	3
Injuries .....	3
Pharyngitis .....	3
Abscesses .....	3
Miscellaneous .....	32
	<hr/>
	155
	<hr/>

The miscellaneous group consists of two cases each of cellulitis, sonne dysentery, erysipelas, coryza, subarachnoid hæmorrhage and cerebral hæmorrhage, and one case each of hyperpiesis, mumps, meningococcal meningitis, meningioma, pneumococcal meningitis, influenza, fibrositis, adenitis, schizophrenia, otitis media, dyspepsia, pneumonitis, psychoneurosis, subacute bacterial endocarditis, subacute appendicitis, sciatica, scurvy and rickets, neuro-syphilis, scarlet fever and rubella.

Type of disease :—

Very mild (non-paralytic)	54
Mild	28
Moderate	30
Severe	25
Deaths	12
	<hr/>
	149
	<hr/>

The cases which suffered from paralysis of one limb only are classified as mild, those suffering from more than one paralysis in which the ultimate prognosis seemed favourable are classified as moderate. The severe group was composed of cases whose final disability is expected to be of great incapacity.

The following paralyses were recorded :—

Site	In cases which	
	(a) Survived	(b) Died
Lower limb or limbs	70	6
Upper limb or limbs	37	8
Back	27	3
Neck	6	3
Face	5	—
Eyes	3	1
Abdomen	5	—
Palate	3	—
Pharynx	1	1
Intercostal	2	6
Diaphragm	—	8
	<hr/>	<hr/>
	159	36
	<hr/>	<hr/>

The 159 paralyses occurred in 83 paralytic cases which survived and the 36 in the twelve cases which died.

Sixty-six cases had some residual paralysis on discharge home or on transfer to an orthopædic hospital. Thirty-one cases were transferred to an orthopædic hospital, the remainder were to attend an orthopædic out-patients' department for further treatment and surveillance.

Table showing mortality in poliomyelitis according to day of disease on admission to hospital.

<i>Days of Disease</i>	<i>Total</i>	<i>Died</i>	<i>Mortality</i>
First .....	3	—	—
Second .....	10	—	—
Third .....	25	3	12·0%
Fourth .....	24	3	12·5%
Fifth .....	16	1	6·2%
Sixth .....	17	4	23·5%
Seventh .....	10	—	—
Eighth .....	17	—	—
Ninth .....	7	1	14·3%
Tenth and over .....	20	—	—
	<u>149</u>	<u>12</u>	<u>8·1%</u>

The cause of death in eight cases was due to respiratory paralysis. All these cases were treated in the iron lung for periods ranging from a few hours to 4½ months. Three deaths were attributed to polio-encephalitis and one to poliomyelitis associated with broncho-pneumonia.

Table showing age and sex of poliomyelitis cases :—

Age group	1—5	5—10	10—15	15—20	20—30	30—40	Over 40	Total
Recovered :								
Males	19	13	19	6	5	4	3	69
Females	20	12	8	7	15	4	2	68
Died :								
Males	—	—	—	—	5	1	—	6
Females	1	1	1	—	1	2	—	6
	40	26	28	13	26	11	5	149

Hospitality mortality—8·1%

### Puerperal Pyrexia

There were 47 cases of puerperal pyrexia notified of which eight required revision as follow :—

Influenza .....	2
Miliary tuberculosis .....	1
Pneumonia .....	1
Debility .....	1
Cardiac failure and mitral stenosis .....	1
No evidence of disease .....	2
	<u>8</u>

The cause for the pyrexia in the remaining cases was as follows :—

Subinvolution .....	19
Pneumonia .....	3
Septic scarlet fever .....	1
Mastitis .....	2
Pyelitis .....	2
Septic perineum .....	4
Fissured nipples .....	2
Breast abscess .....	2
Abortion .....	1
Thrombo-phlebitis and pulmonary embolus .....	3
	<hr/>
	39
	<hr/>

In addition to the above 39 cases there were nine cases admitted for observation, making a total number of 48 cases treated.

There was one death in the case of cardiac failure and mitral stenosis.

## Pneumonia

There were 27 cases notified as pneumonia, of which 11 required revising as follow :—

Bronchiectasis .....	1
Whooping cough .....	2
Measles .....	3
Bronchitis .....	4
Pulmonary tuberculosis .....	1
	<hr/>
	11
	<hr/>

The actual number of cases treated was 70, including :—

Notified as scarlet fever .....	3
„ „ gastro-enteritis .....	5
„ „ dysentery .....	1
„ „ meningitis .....	19
„ „ whooping cough .....	1
„ „ tuberculosis .....	1
„ „ diphtheria .....	3
„ „ poliomyelitis .....	8
„ „ puerperal pyrexia .....	1
„ „ rubella .....	2
„ „ whooping cough .....	10
	<hr/>
	54
	<hr/>

There were 5 deaths.

## Rubella

During the year there were 95 cases notified as suffering from rubella, but of these twenty-three required revision of diagnosis as follow :—

Measles .....	8
Mastoiditis .....	1
Whooping cough .....	1
Scarlet fever .....	6
Lobar pneumonia .....	2
Erythema of unknown origin .....	3
Urticaria .....	1
Scabies .....	1
	<hr/>
	23
	<hr/>

There were 111 true cases treated on the wards, including :—

Notified as scarlet fever .....	7
„ „ measles .....	30
„ „ poliomyelitis .....	1
„ „ gastro-enteritis .....	1
	<hr/>
	39
	<hr/>

## Smallpox

There were three notified cases of smallpox, but all three required revision of diagnosis :—

Papular erythema of unknown origin .....	1
Septic eruption .....	1
Chickenpox .....	1

One mild case of true smallpox was treated at Witton Hospital.

## Vincent's Angina

Of the ten notified cases of Vincent's Angina, eight required revision :

Ludwig's angina .....	1
Miliary tuberculosis .....	1 (died)
Ulcerative stomatitis .....	3
Tonsillitis .....	2
Pneumonia .....	1

There were two true cases and no deaths.

## Encephalitis

There were seven cases notified as encephalitis of which six required revising :—

Glioma of right frontal lobe .....	1 (died)
Fulminating pulmonary tuberculosis .....	1 (died)
Mumps .....	1
Healing vaccination .....	1
Perforated appendix with peritonitis .....	1
Perforated appendix with appendix abscess.....	1
	<hr/>
	6
	<hr/>



## Operations

Eighty-two operations were performed in the theatre during the year :

Appendicectomy	20
Intussusception	4
Mastoidectomy	19
Incision of abscesses	8
Empyema drainage	3
Tonsillectomy	3
Gynaecological	1
Circumcision	1
Dental	1
Miscellaneous (minor)	22
	<hr/>
	82
	<hr/>

The surgeons attended on sixty-four occasions to perform the above operations. Eleven of the minor miscellaneous operations were performed by the resident staff.

## Staff Prophylaxis

All members of the nursing staff were Schick and Dick tested soon after entering the hospital.

Dick and Schick tested	57
Dick negative and Schick negative	29
Dick positive and Schick positive	4
Dick positive and Schick negative	9
Dick negative and Schick positive	15
	<hr/>
Total	57
	<hr/>
Schick positive	19
Acquired immunity after treatment	16
Left before complete	2
Required further course before negative	1
	<hr/>
Total	19
	<hr/>
Dick positive	13
Acquired immunity after treatment	11
Left before complete	1
Required further course before negative	1
	<hr/>
Total	13
	<hr/>

In addition all members of the nursing staff are tested at six-monthly intervals.

## Sickness amongst the Staff during 1947

Colds and coughs	.....	11
Tonsillitis and sore throats	.....	19
Diarrhoea and vomiting	.....	6
Influenza	.....	2
Blisters, burns and scalds	.....	6
Septic fingers	.....	4
Chickenpox	.....	3
General malaise	.....	3
Cuts and bruises	.....	2
Mumps	.....	2
Abscess	.....	1
Appendicitis	.....	1
Blepharitis	.....	1
Cellulitis	.....	1
Dysentery	.....	1
Gastro-enteritis	.....	1
Infective hepatitis	.....	1
Tonsillectomy	.....	1
Undulant fever	.....	1
Rubella	.....	7
Miscellaneous	.....	22
		<hr/>
		96
		<hr/>

## X-Ray

During the year 448 cases were X-rayed for the following reasons :

Chest symptoms	.....	346
Routine examination, Nurses	.....	28
Suspected injuries :		
Upper limbs	.....	10
Lower limbs	.....	11
Skull	.....	2
Spine	.....	1
Suspected disease :		
Upper limbs	.....	6
Lower limbs	.....	27
Skull	.....	9
Spine	.....	5
Foreign bodies	.....	3
		<hr/>
	TOTAL	448
		<hr/>

## Summary of Specimens Examined in Laboratory

Swabs—B. diphtheria .....	1,458
Swabs—Vincent's angina .....	108
Swabs—Organisms .....	39
Pus—Organisms .....	31
Sputum—microscopical and cultural .....	35
Pleural fluids—microscopical and cultural .....	12
Blood cultures .....	21
Urines—chemical and microscopical .....	214
Cerebro-spinal fluids—chemical, cytological and bacteriological .....	1,005
Stools—amoeba .....	10
Stools—tubercle bacilli .....	2
Stools—occult blood .....	2
Blood—Widal tests .....	14
Blood—miscellaneous .....	4
Miscellaneous examinations .....	5
Cultures for B.diphtheria prepared for City Laboratory .....	1,451
Cultures for haemolytic streptococci prepared for City Laboratory .....	1,379
	<hr/>
	5,790

## PREVENTION OF BLINDNESS

### *General Outline of Facilities Available in the City.*

The arrangements continue substantially on the lines and over the same range of services as immediately before the war.

The number of Birmingham residents on the blind register at the end of 1947 was 673 males and 668 females, a total of 1,341, which is nineteen more than at the end of 1946.

## REPORT ON TUBERCULOSIS

By DR. J. E. GEDDES, *Chief Clinical Tuberculosis Officer*

The Health Committee maintain a single dispensary centrally situated in the City, and provide 751 beds in four sanatoria for the treatment of all forms of tuberculosis in adults and children.

The beds are allocated as follows :—

	<i>Men</i>	<i>Women</i>	<i>Children</i>	<i>Total</i>
City Sanatorium, Yardley Green				
Road .....	194	144	75	413*
West Heath Sanatorium .....	63	87	—	150
Romsley Hill Sanatorium .....	75	45	—	120*
Salterley Grange Sanatorium .....	38	30	—	68
	370	306	75	751

\* Inclusive of 28 observation beds in the City Sanatorium, Yardley, and 32 beds in the Romsley Hill Sanatorium rented to other authorities.

During 1947 the normal complement of beds was available but 20 beds in the Romsley Hill Sanatorium were closed throughout the year because of shortage of nursing staff, and 30 beds in the West Heath Sanatorium were closed for a considerable period for structural alterations.

The number of patients awaiting admission and the duration of treatment during 1947 are shown in the following statement :—

	<i>Average number of patients on waiting list each month</i>	<i>Average period on Waiting list</i>	<i>Average duration of sanatorium treatment</i>
Men .....	131	27 weeks	191 days
Women .....	119	38 „	227 „
Children .....	44	40 „	341 „

These are unsatisfactory records. The number of patients on the waiting list on 31st December, 1947, was 268, which represents 44.8 per cent. of the number of patients in the sanatoria on that date. The average waiting period throughout the year was 245 days. Circumstances of this kind are a most formidable handicap, and particular attention has been given by the Tuberculosis Sub-Committee to the need to acquire additional accommodation for the treatment of all forms of tuberculosis in adults and children.

### Staff

Despite considerable efforts in various directions there was again no improvement in the recruitment of staff. Work in each sanatorium was made difficult because of shortage of staff. Standards have been difficult to maintain, but it is most appropriate to acknowledge the ready assistance of all members of the present nursing and domestic staff in circumstances of real difficulty.

## Notifications

The notification rate during 1947 for all forms of tuberculosis was 1·31 per 1,000 population, an increase in comparison with the figures for 1946 of 107 or 0·10 per 1,000 of the population.

The pulmonary rate was 1·14 and the non-pulmonary rate 0·17 per 1,000 of the population. In comparison with 1946, the pulmonary rate has increased by 88 cases or 0·08 per 1,000 of the population, and the non-pulmonary rate by 19 cases or 0·02 per 1,000 of the population.

## Mortality

The mortality rate during 1947 from all forms of tuberculosis was 0·70 per 1,000 population, which represents in comparison with 1946 an increase of 59 deaths or 0·05 per 1,000 of the population.

The pulmonary mortality rate was 0·64 and the non-pulmonary rate 0·05 per 1,000 of the population.

In comparison with 1946 the pulmonary rate has increased by 75 deaths or 0·07 per 1,000 of the population and the non-pulmonary rate has decreased by 16 deaths or 0·01 per 1,000 of the population.

The number of cases and deaths occurring in past years are shown in the following tables :—

### TUBERCULOSIS (All forms)

		<i>New Cases</i>	<i>Rate per 1,000 Population</i>	<i>Deaths</i>	<i>Death-rate per 1,000 Population</i>
1901—1910 (average)	.....	—	—	1,309	1·65
1911—1920	„ .....	—	—	1,284	1·46
1921—1930	„ .....	1,824	1·91	1,031	1·08
1931—1935	„ .....	1,459	1·43	928	0·91
1936	.....	1,136	1·10	805	0·78
1937	.....	1,119	1·07	836	0·80
1938	.....	1,209	1·15	813	0·78
1939	.....	1,036	0·98	885	0·84
1940	.....	1,049	1·03	855	0·84
1941	.....	1,073	1·13	850	0·90
1942	.....	1,257	1·30	833	0·86
1943	.....	1,239	1·28	750	0·78
1944	.....	1,371	1·38	782	0·79
1945	.....	1,348	1·36	749	0·76
1946	.....	1,300	1·28	689	0·68
1947	.....	1,407	1·31	748	0·70



The relative prevalence and mortality from pulmonary and other forms of tuberculosis are shown in the two subsequent tables :—

#### PULMONARY TUBERCULOSIS

		<i>New Cases</i>	<i>Rate per 1,000 Population</i>	<i>Deaths</i>	<i>Death-rate per 1,000 Population</i>
1901—1910 (average)	.....	—	—	993	1·25
1911—1920	„	—	—	1,059	1·20
1921—1930	„	1,533	1·61	892	0·94
1931—1935	„	1,225	1·20	824	0·80
1936	.....	962	0·93	734	0·71
1937	.....	965	0·93	756	0·72
1938	.....	1,011	0·96	732	0·70
1939	.....	863	0·82	808	0·77
1940	.....	899	0·88	786	0·77
1941	.....	922	0·97	768	0·81
1942	.....	1,069	1·11	745	0·77
1943	.....	1,106	1·14	681	0·71
1944	.....	1,190	1·20	696	0·70
1945	.....	1,193	1·21	671	0·68
1946	.....	1,135	1·12	616	0·61
1947	.....	1,223	1·14	691	0·64

#### NON-PULMONARY TUBERCULOSIS

		<i>New Cases</i>	<i>Rate per 1,000 Population</i>	<i>Deaths</i>	<i>Death-rate per 1,000 Population</i>
1901—1910 (average)	.....	—	—	317	0·40
1911—1920	„	—	—	224	0·26
1921—1930	„	290	0·31	139	0·14
1931—1935	„	234	0·23	104	0·10
1936	.....	174	0·17	71	0·07
1937	.....	154	0·15	80	0·08
1938	.....	198	0·19	81	0·08
1939	.....	173	0·16	77	0·07
1940	.....	150	0·15	69	0·07
1941	.....	151	0·16	82	0·09
1942	.....	188	0·19	88	0·09
1943	.....	133	0·14	69	0·07
1944	.....	181	0·18	86	0·09
1945	.....	155	0·16	78	0·08
1946	.....	165	0·16	73	0·07
1947	.....	184	0·17	57	0·05

The localisation of the disease in the case of the 57 deaths from non-pulmonary tuberculosis is shown in statement (a), and an analysis according to sex and age of all notifications and deaths is given in statement (b) :—

(a)

Tuberculous meningitis	.....	26
Abdominal tuberculosis	.....	9
Bone and joint tuberculosis	.....	4
Disseminated tuberculosis	.....	15
Tuberculosis of other organs	.....	3

(b)

## PULMONARY TUBERCULOSIS

Age	Male		Female	
	Cases	Deaths	Cases	Deaths
0—	5	2	3	4
1—2	26	11	17	11
3—4	17	1	14	1
5—14	45	4	37	3
15—24	168	33	180	79
25—44	233	146	184	110
45—64	202	187	53	48
65—74	28	32	5	9
75 and above	3	6	3	4
	727	422	496	269

Total Cases, 1,223; Total Deaths, 691

## NON-PULMONARY TUBERCULOSIS

Age	Male		Female	
	Cases	Deaths	Cases	Deaths
0—	1	1	2	1
1—2	15	3	10	5
3—4	8	4	6	3
5—14	20	5	18	7
15—24	14	3	28	8
25—44	16	3	18	7
45—64	16	4	8	—
65—74	1	1	3	2
75 and above	—	—	—	—
	91	24	93	33

Total Cases, 184; Total Deaths, 57

Grand Totals : Cases 1,407  
Deaths 748

## NOTIFICATION RATE

## Pulmonary Tuberculosis

The number of cases of pulmonary tuberculosis notified during 1947 was 360 (41·7%) above the notification figure for 1939, and is the highest recorded since 1933. There has been a steady increase in the number of annual notifications of pulmonary tuberculosis during the past nine years—from 863 in 1939 to 1,223 in 1947. These figures no doubt mean an actual increase in incidence and to that extent are unsatisfactory, but the general attention given in recent years to early diagnosis may well have influenced these figures, and that aspect of the problem requires consideration. Its significance may at least be inferred from the statement on page 7 which shows that in 947 cases of pulmonary tuberculosis in adults examined during 1947, 229 or 24·2% were cases of early pulmonary tuberculosis, whilst in 1939, the comparable figure was 98 or 14·6%.

## **Non-Pulmonary Tuberculosis**

The number of cases of non-pulmonary tuberculosis notified during 1947 was 11 (6·4%) above the notification figure for 1939. The figures of notification for non-pulmonary tuberculosis have undergone little alteration in the past nine years.

## **Non-Notification**

The number of deaths from non-notified pulmonary tuberculosis was 60 or 8·7% and from non-pulmonary tuberculosis 13 or 22·8%.

The percentage of non-notified deaths from all forms of tuberculosis was therefore 9·8% but in 32 cases the diagnosis was established following an autopsy, and the corrected figure is 5·5% of the total deaths from all forms of tuberculosis. The figure for 1946 was 3·5%.

## **MORTALITY RATE**

### **Pulmonary Tuberculosis**

The mortality rate from pulmonary tuberculosis shows a slight increase on the figure for 1946, but is, with the exception of that year, the lowest so far recorded. This low rate despite the substantial increase in notifications since 1939 is altogether satisfactory, and provides additional information by which the significance of the increase in notifications can be suitably judged.

### **Non-Pulmonary Tuberculosis**

The mortality rate from non-pulmonary tuberculosis is the lowest so far recorded.

## **ANTI-TUBERCULOSIS CENTRE**

Senior Assistant Tuberculosis Officer, Dr. J. R. A. D. Todhunter.

The Anti-Tuberculosis Centre is open throughout the week, on Saturdays for the half-day, and one evening session is held.

The medical staff employed at the Centre, with the exception of Dr. Todhunter and Dr. Gilmore, are also responsible for the administrative and clinical work of the municipal sanatoria.

The number of patients on the tuberculosis register on 31st December, 1947, was 6,978; the number transferred to other areas during the year and the untraced cases numbered 242; the number transferred to this area from other areas and untraced cases identified was 179.

During the year 1,223 new cases of pulmonary tuberculosis were notified, and of that number 1,046 or 85·5% were examined at the Centre.

The work undertaken at the Centre during 1946 and 1947 is shown in the following statement :—

	1946	1947
Attendances for consultation and examination .....	13,329	13,769
Attendances for supervision and treatment .....	1,454	1,650
Attendances for X-ray examination .....	17,573	17,567
Attendances for artificial pneumothorax treatment	3,934	4,791
Attendances for artificial light treatment .....	925	508
	<hr/>	<hr/>
	37,215	38,285
	<hr/>	<hr/>

The mobile radiography work introduced last year has been of value and during the year the team visited 39 homes. The X-Ray team concerned is also responsible for radiological work at the Yardley Green Road Sanatorium and the time now available for this domiciliary work is somewhat limited.

The following tables show the classification of patients examined at the centre during the year :—

CLASSIFICATION OF THOSE PATIENTS WHO WERE EXAMINED FOR THE FIRST TIME  
DURING 1947

ADULTS.

PULMONARY

	<i>Newly Notified</i>	<i>Contacts</i>	<i>Mass Radiography Suspects</i>
A1 .....	90	7	84
A2 .....	66	18	115
A3 .....	30	1	45
B1 .....	20	—	18
B2 .....	97	16	124
B3 .....	91	3	88

NON-PULMONARY

A .....	37	—	30	—
B. ....	2	—	—	—
No evidence of Active Pulmonary Tuberculosis	106	663	3,722	102
	<hr/>	<hr/>	<hr/>	<hr/>
	539	708	4,226	136
	<hr/>	<hr/>	<hr/>	<hr/>

# CHILDREN

				<i>Newly Notified</i>	<i>Contacts</i>	<i>Suspects</i>	<i>Mass Radiography Suspects</i>
PULMONARY							
A1	.....	.....	.....	22	39	19	2
A2	.....	.....	.....	3	2	1	—
A3	.....	.....	.....	4	2	2	—
B1	.....	.....	.....	—	—	—	—
B2	.....	.....	.....	1	—	—	—
B3	.....	.....	.....	2	—	—	—
NON-PULMONARY							
A.	.....	.....	.....	20	1	9	—
B.	.....	.....	.....	1	—	1	—
No evidence of active pulmonary tuberculosis				47	607	805	2
				100	651	837	4

Reference has been made in previous reports to the considerable proportion of adult cases of pulmonary tuberculosis showing evidence of advanced disease on initial examination.

The figure for 1939 was 40·9% ; for 1943, 36·4% ; for 1944, 30% ; for 1945, 30% ; for 1946, 23·4% ; and for 1947, 27·6%.

These figures show, despite the small increase for 1947, a distinct improvement and it is most unfortunate that the improvement should coincide with conditions which make prompt sanatorium treatment impossible.

## TREATMENT RECOMMENDED FOR THOSE PATIENTS WHO WERE EXAMINED FOR THE FIRST TIME DURING 1947.

### ADULTS

				<i>Newly notified</i>	<i>Contacts</i>	<i>Suspects</i>	<i>Mass Radiography Suspects</i>
Sanatorium treatment	.....			301	35	377	25
Dispensary treatment	.....			2	—	2	—
Out-patient artificial light treatment	.....	.....		6	—	9	—
Supervision	.....	.....		40	—	38	2
Domiciliary treatment	.....			84	10	78	7
No treatment required	.....			106	663	3,722	102
				539	708	4,226	136



## CHILDREN

	<i>Newly notified</i>	<i>Contacts</i>	<i>Suspects</i>	<i>Mass Radiography Suspects</i>
Sanatorium treatment .....	37	33	20	1
Supervision .....	5	4	6	1
Out-patient artificial light treatment .....	2	—	1	—
Domiciliary treatment .....	9	7	5	—
No treatment required .....	47	607	805	2
	100	651	837	4

## TREATMENT RECOMMENDED FOR THOSE PATIENTS WHO WERE RE-EXAMINED DURING 1947

### ADULTS

	<i>Definite Cases</i>	<i>Contacts</i>	<i>Suspects</i>
Sanatorium treatment .....	281	—	5
Dispensary treatment .....	20	—	—
Supervision .....	1,105	1	—
Out-patient artificial light treatment .....	10	—	—
Domiciliary treatment .....	2,037	—	4
No treatment required .....	919	199	927
	4,372	200	936

## CHILDREN

	<i>Definite cases</i>	<i>Contacts</i>	<i>Suspects</i>
Sanatorium treatment .....	19	3	2
Dispensary treatment .....	1	—	—
Supervision .....	293	1	1
Out-patient artificial light treatment .....	3	—	—
Domiciliary treatment .....	50	—	—
No treatment required .....	91	365	231
	457	369	234

## Contacts

The number of contacts examined in relation to the total notifications for 1947 and to individuals on the Tuberculosis Register is obviously inadequate. Supervision is defective and an extension of this work is essential.

Arrangements have been made with Dr. Halliday Sutherland for the supervision of contacts by miniature radiography. The scheme was completed by the end of the year and at the first sessions 895 contacts—60·4% of those invited to attend—were examined, but the figures are excluded from the following table. This extension of the scheme should prove of considerable value. It has added to the work of the Tuberculosis Visitors but their interest and that of Miss Turney who has undertaken the clerical organisation of the scheme has given impetus to this new endeavour in supervision.

#### CONTACTS EXAMINED DURING 1947

<i>Total Number of Cases</i>			<i>Contacts to patients with sputum containing tubercle bacilli</i>		<i>Contacts to patients with negative sputum</i>	
<i>0 to 5 years</i>						
Tuberculous	32	10·4%	25	78·1%	7	21·9%
Non-Tuberculous	276	89·6%	154	55·8%	122	44·2%
308			179		129	
<i>6 to 15 years</i>						
Tuberculous	16	4·3%	9	56·3%	7	43·7%
Non-Tuberculous	360	95·7%	184	51·1%	176	48·9%
376			193		183	
<i>16 years and over :</i>						
Tuberculous	43	6·4%	22	51·2%	21	48·8%
Non-Tuberculous	632	93·6%	358	56·6%	274	43·4%
675			380		295	

It is of interest to compare the incidence of active tuberculosis in these contacts (16 years and above), with the number detected under the mass radiography scheme. The figures are 6·4% and 0·21% respectively.

#### Dental Treatment

Dentist : Mr. W. A. Stockwin.

One dental session is held each week. The following work was undertaken :—

Extractions	.....	.....	.....	.....	.....	.....	224
Scalings and fillings	.....	.....	.....	.....	.....	.....	26
Dentures	.....	.....	.....	.....	.....	.....	22

#### Work of the Tuberculosis Visitors

There are ten nurses engaged as Tuberculosis Visitors in the department. The visitors are concerned with the domiciliary welfare of the patient ; the range of their duties is wide, and the character of the work

varied. It is their primary duty to make enquiry into every case of tuberculosis, and maintain by regular visits close contact with the patient in his home.

After-care in all its aspects is the concern of the visitor, and an indication of the scope of the work is shown in the following statement :—

#### VISITS PAID BY THE TUBERCULOSIS VISITORS DURING 1946 AND 1947

	1946	1947
Primary visits (to new cases) . . . . .	1,618	1,697
Routine re-visits . . . . .	21,792	18,923
Special visits and re-visits . . . . .	7,421	6,977

The following statement gives an indication of certain of the after-care activities of the department :—

	1946	1947
Beds issued . . . . .	349	377
Chalets provided . . . . .	13	12
Grants of clothing and nursing appliances . . . . .	559	487
Number of fares paid for patients . . . . .	285	124
Allowances granted . . . . .	610	664
Grants of food made . . . . .	96	192
Red Cross Society parcels recommended . . . . .	188	190

(The provision of chalets is governed by the fitness of the patient to sleep or rest unattended for prolonged periods out of doors).

The close co-operation existing between the Anti-Tuberculosis service, the School Medical Officer's Department, and the Maternity and Child Welfare Department, is most valuable, and has provided opportunities for the after-care service to be widely applied.

### Disinfection

The disinfection of 1,459 houses where a member of the family had suffered or died from tuberculosis, or changed his or her address, was carried out during the year.

### Housing

The housing problem during the year has continued to be a difficult one, but despite these difficulties the Estates Department has been able to offer suitable accommodation to 215 tuberculous families. That in present circumstances is a good record and the co-operation of the Estates Committee has been of the utmost importance.

There are in the present circumstances however no grounds for complacency, and until conditions in the home support the work of the health visitors and of the sanatoria, progress in the control of tuberculosis will continue to be defective.

## Action Under Legal Enactment

It was unnecessary during the year to take action under the Public Health (Prevention of Tuberculosis) Regulations, 1925, relating to tuberculous employees in the milk trade ; nor was Section 172 of the Public Health Act, 1936, employed to remove any patient compulsorily to a sanatorium.

## Allowances

The following table shows the applications received during the year :—

Total applications received	813
Allowances granted	664 or 82%
Allowances not granted	149 or 18%

Reason for rejection.

(Memo. 266/T Scheme and General Scheme).

	Number	Percentage of total applications
Ineligible for financial and domestic reasons	70	8·610
Applicants in sanatoria and without dependants	73	8·979
Left City	3	·369
Died	2	·246
Settlement Law involved	1	·123
	<hr/> 149	<hr/> 18·327

The total payment of allowances during the year was Memo. : 266/T Scheme, £25,814 11s. 7d. ; Public Health Scheme, £14,290 3s. 0d. A total of £40,104 14s. 7d.

## SANATORIA

	Matron	Medical Superintendent
Yardley Green Road Sanatorium	Miss W. Davies	Dr. J. E. Geddes
West Heath Sanatorium	Miss E. G. Davis	Dr. J. McWm. Taylor
Romsley Hill Sanatorium	Miss D. Lee	Dr. D. J. Peebles
Salterley Grange Sanatorium	Miss M. Ross	Dr. D. C. Waddy

Reference has been made in an earlier section of this report to the difficulties which have been experienced in the general recruitment of staff. This shortage has greatly increased the responsibilities of the matrons and of the senior administrative nursing officers of the City sanatoria. I have again satisfaction in recording the very able manner in which over the year they have allocated the reduced staff to the various departments, and by their own competence and keenness ensured the maximum efficiency in circumstances of great difficulty. The shortage of staff has increased equally the work of the ward sisters and the junior nursing staff ; the service owes much to their vigorous collaboration under the constant trial of inadequately staffed wards.

The following table shows the duration and result of treatment of 985 patients discharged from the municipal sanatoria, who were resident for a period of more than one month :—

Classification on admission	Condition on discharge	Duration of residential treatment in the Sanatoria												Grand Totals			
		Under 3 months but exceeding 28 days			3—6 months			6—12 months			More than 12 months				Totals		
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.				
Pulmonary Tuberculosis	T.B. minus	3	4	42	6	7	—	7	4	—	1	1	—	17	16	42	75
	Not quiescent	33	19	11	26	34	—	23	16	1	9	10	—	91	79	12	182
	Died in Sanatoria	1	2	1	—	—	—	—	—	—	—	—	—	1	2	1	4
	Totals	37	25	54	32	41	—	30	20	—	10	11	—	79	124	58	261
Pulmonary Tuberculosis	T.B. plus Group I	—	—	5	—	—	—	1	1	—	1	1	—	2	2	5	9
	Not quiescent	3	4	—	5	6	—	4	8	—	12	5	—	24	23	—	47
	Died in Sanatoria	—	—	—	3	1	—	1	—	—	4	—	—	1	—	—	5
	Totals	3	4	5	8	7	—	6	8	—	17	5	—	25	23	5	50
Pulmonary Tuberculosis	T.B. plus Group II	—	—	—	1	1	—	—	—	—	1	1	—	2	2	—	4
	Not quiescent	47	23	2	48	41	—	46	50	—	47	32	1	188	146	3	337
	Died in Sanatoria	10	9	1	8	7	1	4	8	—	8	6	1	30	30	3	63
	Totals	57	32	3	56	48	—	50	58	—	55	38	2	118	176	6	300
Pulmonary Tuberculosis	T.B. plus Group III	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Not quiescent	36	11	—	26	15	—	18	14	—	14	10	1	94	50	1	145
	Died in Sanatoria	18	13	—	10	4	—	2	6	—	7	9	—	37	32	—	69
	Totals	54	24	—	36	19	—	20	20	—	21	19	—	131	82	—	214
Non-Pulmonary Tuberculosis	Totals	151	85	62	133	116	1	106	107	1	100	75	3	490	383	67	940
	Bones and Joints	—	—	4	—	—	—	—	—	—	—	1	—	—	1	4	5
	Not quiescent	3	—	1	2	1	—	—	1	—	3	—	—	6	2	1	9
	Died in Sanatoria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Non-Pulmonary Tuberculosis	Abdominal	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1
	Not quiescent	—	1	—	—	—	—	—	—	—	—	—	—	—	2	1	3
	Died in Sanatoria	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	1
	Totals	—	1	1	—	—	—	—	—	—	—	—	—	—	—	2	4
Non-Pulmonary Tuberculosis	Other organs	—	—	—	—	—	—	—	—	—	1	1	—	1	—	—	1
	Not quiescent	—	1	—	—	2	—	2	—	—	1	1	—	3	4	2	9
	Died in Sanatoria	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—
	Totals	—	1	2	—	2	—	2	—	—	—	—	—	—	—	2	—
Non-Pulmonary Tuberculosis	Peripheral Glands	—	—	2	—	—	—	—	—	—	—	—	—	—	—	2	2
	Not quiescent	1	1	1	1	4	—	—	—	—	1	1	—	3	6	1	10
	Died in Sanatoria	—	—	—	1	1	—	—	—	—	—	—	—	1	1	—	2
	Totals	1	1	2	2	5	—	—	—	—	—	—	—	—	—	2	12
Totals		4	3	12	4	9	—	2	1	—	6	4	—	16	17	12	45



## Average Duration of Residence

	1946	1947
Adult males .....	180 days	191 days
Adult females .....	199 „	227 „
Boys .....	293 „	311 „
Girls .....	391 „	371 „

The above figures exclude patients admitted for observation who were in residence for a short period, and cases with advanced disease who died within a few days following admission.

## Observation Beds

The Anti-Tuberculosis Scheme includes 28 beds at the City sanatorium for the purpose of observation and investigation. "Observation" patients are those who, after careful and repeated examinations at the Centre, are found to be indefinite either as to the absence or presence of tuberculosis or as to its activity or quiescence when present.

Of the 1,208 patients discharged from the sanatoria, 119 or 9.85% were admitted primarily for observation to the Yardley Green Road Sanatorium. The results of investigation are shown in the following table :

<i>Diagnosis on discharge from observation ward</i>	<i>For Pulmonary Tuberculosis</i>						<i>For Non-Pulmonary Tuberculosis</i>						<i>Totals</i>		
	<i>Stay under 4 weeks</i>			<i>Stay over 4 weeks</i>			<i>Stay under 4 weeks</i>			<i>Stay over 4 weeks</i>					
	<i>M.</i>	<i>F.</i>	<i>Ch.</i>	<i>M.</i>	<i>F.</i>	<i>Ch.</i>	<i>M.</i>	<i>F.</i>	<i>Ch.</i>	<i>M.</i>	<i>F.</i>	<i>Ch.</i>	<i>M.</i>	<i>F.</i>	<i>Ch.</i>
Tuberculous	8	15	10	5	7	12	—	—	—	—	1	—	13	23	22
Non-tuberculous	15	9	2	16	13	6	—	—	—	—	—	—	31	22	8
Doubtful	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	23	24	12	21	20	18	—	—	—	—	1	—	44	45	30

## Hospital Beds

The scheme is fortunate in that it has a certain number of beds for the care and treatment of the patient with advanced pulmonary tuberculosis. The beds are valuable as a prophylactic asset in connection with the maintenance of the public health of the City.

During the period under review there were 748 deaths in the City from all forms of tuberculosis. Of this number 348 or 46.5% occurred at home ; 114 or 15.2% in hospitals controlled by the Public Health Department ; 67 or 9% in other hospitals ; and 219 or 29.3% in sanatoria. Of the 219 deaths in sanatoria, 73 or 33.3% occurred within one month of admission.

## Thoracic Surgery

The surgical work of the Department has been further extended under the direction of Mr. A. L. d'Abreu. Arrangements have been made for Mr. d'Abreu to hold consultation sessions at each sanatorium and also at the Anti-Tuberculosis Centre. During 1947 the following sessions were arranged :—

Romsley Hill Sanatorium	.....	.....	.....	.....	.....	9
Salterley Grange Sanatorium	.....	.....	.....	.....	.....	6
West Heath Sanatorium	.....	.....	.....	.....	.....	11
Anti-Tuberculosis Centre	.....	.....	.....	.....	.....	20

The number of operations performed since January, 1947, was as follows :—

Thoracoplasty	.....	.....	.....	.....	.....	66
Thoracoscopy	.....	.....	.....	.....	.....	76
Phrenic crush or evulsion	.....	.....	.....	.....	.....	51
Thoracotomy	.....	.....	.....	.....	.....	1
Pneumonectomy	.....	.....	.....	.....	.....	3
Bronchoscopy	.....	.....	.....	.....	.....	22
Miscellaneous	.....	.....	.....	.....	.....	31

I desire to acknowledge the great services of Mr. A. L. d'Abreu, F.R.C.S., consultant thoracic surgeon, Mr. J. B. Leather, F.R.C.S., the consultant orthopædic surgeon, and Dr. M. Galbraith, the visiting anæsthetist.

## X-Ray Department, City Sanatorium

The following table shows the number of radiographs taken during the year :—

Pulmonary radiographs	.....	.....	.....	.....	.....	3,636
Bronchographs	.....	.....	.....	.....	.....	177
Pyelographs	.....	.....	.....	.....	.....	193
Bone and joint radiographs	.....	.....	.....	.....	.....	739
Gastric and intestinal radiographs	.....	.....	.....	.....	.....	39
						<hr/> 4,784
Pulmonary radioscopy	.....	.....	.....	.....	.....	2,533
						<hr/> 7,317
TOTAL	.....	.....	.....	.....	.....	<hr/> <hr/> 7,317

## Laboratory Service

Reference was made in the report for 1945 to the general re-organisation of the laboratory service and the following statement of the work undertaken is submitted. It relates solely to specimens submitted to the laboratory from the Yardley Green Road Sanatorium.

Nature of Specimen	Total Number	Laboratory Disposal			
		*Y.G.Rd	*C.B.L.	*D.R.H.	*B.T.U.
BACTERIOLOGICAL					
<i>Sputum</i> Samples examined	4,931	4,512	370	49	—
<i>Gastric Sediment</i> „    „	295	—	295	—	—
<i>Pleural Fluid</i> „    „	99	11	74	14	—
<i>Pus</i> „    „	187	29	111	47	—
<i>Urine</i> „    „	248	19	229	—	—
<i>Faeces</i> „    „	1,130	699	431	—	—
<i>Swabs</i> „    „	129	—	129	—	—
<i>C.S.F.</i> „    „	35	6	15	14	—
<i>Sewage Effluent</i> „    „	1	—	1	—	—
<i>Pericardial Fluid</i> „    „	2	—	1	1	—
<i>Blood, Culture</i> „    „	2	—	2	—	—
<i>Ascitic Fluid</i> „    „	3	—	2	1	—
<i>Synovial Fluid</i> „    „	1	—	1	—	—
<i>Blood, full widal</i> „    „	5	—	5	—	—
<i>WR &amp; Kahn</i> „    „	94	—	94	—	—
<i>Gonococcal Fixa- tion Test</i> „    „	1	—	1	—	—
<i>Faeces, Helminths</i> „    „	8	8	—	—	—
HAEMATOLOGICAL    „    „	978	789	—	—	189
BIOCHEMICAL					
<i>Blood</i> „    „	190	—	—	190	—
<i>Urinalysis</i> „    „	163	163	—	—	—
<i>Urine</i> „    „	81	48	—	33	—
<i>C.S.F. Chlorides</i> „    „	6	4	—	2	—
<i>Faeces</i> „    „	13	9	—	4	—
<i>Glucose Tolerance Test</i> „    „	1	—	—	1	—
<i>Fractional Test Meal</i> „    „	3	—	—	3	—
PATHOLOGICAL					
<i>Specimens for Histology</i> „    „	39	—	—	39	—
<i>Sputum, Malignant cells</i> „    „	11	—	—	11	—
<i>Pus, „ „ „</i> „    „	3	—	—	3	—
<i>Pleural fluid</i> „    „	5	—	—	5	—
TOTALS	8,664	6,297	1,761	417	189

\*Y.G.Rd. = Yardley Green Road Sanatorium Laboratory.

C.B.L. = City Bacteriological Laboratory.

D.R.H. = Pathological Department, Dudley Road Hospital.

B.T.U. = Blood Transfusion Unit.

### Laboratory, Anti-Tuberculosis Centre

In addition to these samples, 7,243 specimens of sputum were examined at the Anti-Tuberculosis Centre.

## School

Staff : Headmistress (Miss M. M. Elrick), and two assistant teachers.

The general organisation and curriculum were mentioned in previous reports. No alteration of significance has been made during the year.

Number of children on roll, 1st January, 1947	33
Number admitted	47
Number discharged	39
Number of children on roll, 31st December, 1947	41

## Rehabilitation

The workshop attached to the Yardley Green Road Sanatorium continues to find sheltered employment for a small number of patients. During the year 41 patients were accepted as trainees and patient employees. The special department inaugurated during 1945 now provides all splints for the sanatorium.

A rehabilitation (employment) clinic has been established at the Anti-Tuberculosis Centre and is under the immediate direction of Dr. J. M. Gilmore. The Divisional Rehabilitation Officer (Ministry of Labour), attends this clinic every week and all patients classified as fit for work by the medical officers are referred to the clinic. During the year 99 patients were interviewed, and part-time employment of a comparatively suitable nature obtained for 84 of these patients.

In addition arrangements were made for twenty-one patients to undergo a course of vocational training. The work of this clinic has increased during the year and its value becomes apparent. The delay in the erection of the factory has however reduced the scope of the work, but Dr. Gilmore has established the foundation and has made good progress with the scheme despite difficulties.

## Mass Radiography

Executive Medical Officer : Dr. Halliday Sutherland.

Mass Radiography surveys were introduced in Birmingham during October, 1944, and by December, 1947, 110,266 visitors had been examined.

There has been no alteration of importance in the practice of mass radiography during the year.

The following groups have been examined :—

### General

- Employees from large and small factories.
- Pupils from Technical and Grammar Schools.
- University Students.
- Members of juvenile clubs.

### Special

- Patients from the Diabetic Clinic, General Hospital.
- Expectant mothers attending the Ante-Natal Centres in the City.
- Contacts.

The following tabular statement shows the main statistical facts :—

# MASS RADIOGRAPHY—(Statistics of Surveys held from 4.9.44 to 31.12.47)

Number of miniature films taken	110,266	Number of abnormal miniature films	8,177 (7.4% of those originally examined)	Number of faulty miniature films (technical)	611 (0.55% of those originally examined)	Total abnormal miniature films	8,788	Percentage of visitors originally examined	8.0%
Number of abnormal miniature films		Number of large films taken		Number of visitors who did not respond to invitation for large film		Number of abnormal large films		Percentage of visitors originally examined	
	8,788		8,549	239 (2.7% of total recalls for large films)		3,912		3.5%	
Number of abnormal large films		Number of visitors with abnormal large films judged to be of no clinical significance		Number of visitors with abnormal large films judged to be of clinical significance who were called for clinical examination		Number of visitors who accepted invitation for clinical examination		Percentage of visitors originally examined	
	3,912	1,895 (48.4% of total abnormal large films)		2,017 (51.6% of total abnormal large films)		1,982		1.8%	
Number of visitors who attended for clinical examination						Number of visitors referred for further investigation		Percentage of visitors originally examined	
	1,982					999		0.9%	

Number of visitors who did not respond to invitation for large film or clinical examination 274 = 0.25% of visitors originally examined.



The disposal of 971 of the 999 visitors referred from the unit for further investigation whose examination at the Anti-Tuberculosis Centre was completed by the end of December, 1947, is shown in the following statement :—

Total	No treatment required	Supervision from Anti-Tuberculosis Centre	Admission to Sanatorium	Observation in Sanatorium	Failed to attend for further examination	Referred to Tuberculosis Officer outside the Birmingham area	Referred to General Practitioner
971	154	418	85	33	36	157	88

The number of cases of tuberculosis detected was as follows :—

	Number	Percentage of those originally examined
(a) All groups (including healed lesions)	1,559	1.5%
(b) Number of cases of active tuberculosis	236	0.21%
(1) Post primary tuberculosis	213	0.19%
(2) Primary tuberculosis	23	0.02%
(c) Number of cases of active pulmonary tuberculosis with sputum positive for tubercle bacilli	87	0.08%

The number of cases of active pulmonary tuberculosis detected was thus 236 or 0.21% of those initially examined.

### MASS RADIOGRAPHY: GRAMMAR SCHOOL AND TECHNICAL SCHOOL PUPILS.

The examinations undertaken during 1947 included surveys of Grammar School and Technical School pupils.

The examinations were undertaken at the Central Mass Radiography department.

Total number of pupils concerned	6,535
Number who accepted invitation to attend Mass Radiography Department .....	5,721 (87.5 per cent.)
Number of miniature films taken .....	5,721
Number of " abnormal " miniature films .....	235 (4.1 per cent. of total miniature films)
Number of large films taken ..... 232	235
Number of children who failed to return for large films ..... 3	
(b) Number of children with abnormal large film judged to be of clinical significance .....	
Number of children who failed to return for clinical examination	0
Number of cases of tuberculosis (all forms) ....	26 (0.5 per cent. of total miniature films)
Active primary tuberculous lesions ..... 0	26
Inactive primary tuberculous lesions ..... 20	
Active post-primary tuberculous lesions ..... 1	
Inactive post-primary tuberculous lesions ..... 3	
Pleural effusion ..... 2	

TOTAL NUMBER OF CASES OF ACTIVE TUBERCULOSIS—3 (or 0.05 per cent. of total miniature films taken).

These surveys have been undertaken with satisfactory co-operation of the parents and with the collaboration of the School Medical Officer.

Arrangements have been made to undertake an annual survey of all children in the Grammar and Technical Schools from the age of 14.

During 1947, 2,336 children who had previously attended the Mass Radiography department were examined. This scheme of annual radiography for these children has many advantages and whilst the number of cases of active pulmonary tuberculosis detected has been low, the educative value of the scheme warrants attention in any final assessment of its usefulness.

It will clearly become necessary when the surveys have been in operation for an appropriate period to consider the general arrangements in the light of the information obtained so that the scheme can be applied with maximum advantage.

I desire to record the very great advantage derived from the visits of Dr. James Brailsford, the consultant radiologist and to acknowledge the work developed by Dr. Halliday Sutherland and his staff throughout the year.

### VENEREAL DISEASES

Happily the records for 1947 show a marked decline in new cases, as compared with what we may hope to be the high water mark of incidence in 1946.

The new cases of syphilis were not markedly higher than those in 1945, and were almost identical in number with those for 1944. The new cases of gonorrhœa were fewer than those in 1945, as well as in 1946.

The precise figures are included in the two tables which follow :—

			<i>New Cases</i>		
			<i>Soft</i>		<i>Other</i>
<i>Syphilis</i>			<i>Chancre</i>	<i>Gonorrhoea</i>	<i>Conditions</i>
General Hospital .....	.....	521	—	1,017	2,808
Children's Hospital .....	.....	11	—	—	27
Lancaster Street .....	.....	56	—	16	1,154
Birmingham Infirmary .....	.....	20	—	19	14
		<hr/>	<hr/>	<hr/>	<hr/>
TOTAL .....	.....	608	—	1,052	4,003
		<hr/>	<hr/>	<hr/>	<hr/>

The following table gives the data over a period of ten years :—

			<i>Syphilis</i>	<i>Soft Chancre</i>	<i>Gonorrhœa</i>	<i>Other Conditions</i>
1938	.....	.....	346	—	955	2,423
1939	.....	.....	330	1	948	2,282
1940	.....	.....	318	1	835	1,957
1941	.....	.....	343	4	940	2,261
1942	.....	.....	515	2	1,030	2,906
1943	.....	.....	685	—	878	4,816
1944	.....	.....	604	—	765	4,583
1945	.....	.....	567	—	1,061	4,695
1946	.....	.....	835	—	1,510	5,437
1947	.....	.....	608	—	1,052	4,003

The total attendances for treatment are indicated below :—

1938	.....	131,611	1943	.....	97,973
1939	.....	88,083	1944	.....	92,915
1940	.....	75,936	1945	.....	84,539
1941	.....	73,175	1946	.....	96,515
1942	.....	83,776	1947	.....	71,482

Further particulars of the work done at the Centres in 1947 are as follows :—

	<i>Syphilis</i>	<i>Soft Chancre</i>	<i>Gonorrhoea</i>	<i>Other Conditions</i>
No. of cases under treatment, Jan. 1st, 1947.....	1,916	—	530	569
New cases under treatment during year .....	608	—	1,052	4,003
Total attendances .....	41,371	15	11,266	18,830
No. discharged after completion of treatment and observation .....	545	3	818	4,025
No. transferred to other centres .....	237	—	160	53
No. who ceased to attend:				
Before completion of treatment .....	202	—	22	—
After completion of treatment but before final tests as to cure	142	—	240	—
No. of cases of congenital syphilis treated :				
Under 1 year of age .....	7	Aged 5-15 years .....	5	
Aged 1-5 years .....	3	Aged 15 years and over	26	
<b>TOTAL</b> .....			<b>41</b>	

The corresponding number of cases of congenital syphilis under treatment in 1946 was 48. The further reduction in this number from 66 in 1944, 68 in 1945, and 48 in 1946, to 41 in 1947, is a very satisfactory feature, reflecting credit on the effectiveness of the ante-natal care service, with its systematic examination from this as from other standpoints.

## Contact Tracing

Defence Regulation 33B, which required that a person named as the contact by two separate sufferers from venereal disease should undergo medical examination and, if necessary, treatment, was withdrawn on 31st December, 1947.

During the year a contact who had been named on two occasions was transferred by a local authority in the North of England, and although she was traced and visited, she left the district within a few days, before treatment could be arranged.

The numbers of contacts in respect of whom a single Form I was received have continued to decline but, in spite of insufficient information being supplied in many cases, every effort has been made by the Almoner's Department and the special health visitors to persuade the contact to attend for examination, and treatment, if this should prove necessary.

### Particulars under Regulation 33B

Number of contacts in respect of whom Form I was received	.....	22
Not traced owing to insufficient information	.....	10
Contacts found and visited	.....	10
Contacts examined or already under treatment	.....	7
Number of contacts in respect of whom two or a subsequent Form I were received	.....	1
Not traced owing to insufficient information	.....	—
Contacts found and visited	.....	1
Contacts examined or already under treatment	.....	—
Contacts examined after service of Form II	.....	—
Prosecutions	.....	—

### Educational Work

This is merged in the wider aspect of Health Education as a whole, and receives reference in the Maternity and Child Welfare section of this Report.



TABLE I  
VITAL STATISTICS DURING 1947 AND PREVIOUS YEARS

YEAR	Population Estimated to middle of each year	Birth-rate	Death-rate	Infant Mortality rate per 1,000 Births	DEATH-RATES PER 1,000 OF POPULATION FROM												DEATH-RATES PER 1,000 LIVE BIRTHS							
					Small Pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Tuberculosis		Cancer	Diseases of Nervous System	Diseases of Circulatory System	Diseases of Respiratory System	Diseases of Digestive System	Diseases of Genito- Urinary System	Suicides	Other Violence	Congenital Debility, Premature Birth, Malformations, etc. (under 1)	Diarrhoea and Enteritis (under 2)	Puerperal Fever	Other Accidents of Child Birth
											Respiratory	Other Forms												
1911	842,337	26.1	15.0	150	.04	.47	.10	.17	.13	.09	1.14	.32	.89	?	2.51	?	?	.41	?	48.4	10.8	1.64	2.18	
1912	850,947	26.1	14.1	111	.04	.46	.18	.39	.12	.12	1.28	.24	.93	1.33	2.68	1.95	.50	.07	.45	48.2	35.5	1.85	2.01	
1913	859,644	27.3	14.9	129	.04	.67	.20	.19	.13	.11	1.19	.34	.92	1.37	2.48	1.49	.51	.09	.43	47.2	27.6	1.42	1.77	
1914	882,534	26.4	14.8	122	.02	.35	.17	.35	.30	.16	1.20	.27	.88	1.35	2.69	1.82	.48	.05	.45	42.8	27.3	1.65	1.79	
1915	891,234	23.8	14.4	118	.01	.47	.17	.35	.15	.16	1.28	.27	1.00	1.36	2.82	1.31	.48	.05	.45	42.8	27.3	1.65	1.79	
Average	885,678	25.9	14.6	126	.03	.48	.14	.25	.16	.13	1.22	.29	.94	1.36	2.64	1.36	.51	.09	.44	46.6	25.3	1.56	1.96	
1916	900,000	23.1	13.3	104	.01	.11	.03	.42	.13	.16	1.24	.24	1.00	1.29	2.60	1.07	.45	.06	.38	39.5	18.4	1.50	1.94	
1917	900,000	19.7	12.6	101	.01	.08	.01	.32	.14	.13	1.30	.26	1.02	1.23	2.10	.88	.44	.06	.38	43.8	18.0	1.47	1.94	
1918	910,000	19.4	15.2	99	.01	.08	.01	.32	.14	.13	1.30	.26	1.02	1.23	2.10	.88	.44	.06	.38	43.8	18.0	1.47	1.94	
1919	910,000	20.9	13.0	84	.01	.08	.01	.32	.14	.13	1.30	.26	1.02	1.23	2.10	.88	.44	.06	.38	43.8	18.0	1.47	1.94	
1920	910,000	27.6	12.6	83	.01	.16	.12	.05	.06	.14	1.15	.18	1.01	1.07	1.73	2.67	.86	.35	.11	.34	40.0	9.9	1.19	1.41
Average	919,683	22.1	13.4	94	.01	.16	.12	.05	.06	.14	1.15	.18	1.01	1.07	1.73	2.67	.86	.35	.11	.34	40.0	9.9	1.19	1.41
1921	927,844	24.1	11.3	83	.01	.09	.04	.38	.10	.13	1.18	.22	1.03	1.17	1.79	2.54	.88	.39	.08	.36	35.2	9.5	1.03	1.58
1922	927,844	21.5	12.1	86	.01	.07	.04	.38	.10	.13	1.18	.22	1.03	1.17	1.79	2.54	.88	.39	.08	.36	35.2	9.5	1.03	1.58
1923	936,079	20.4	11.0	72	.01	.09	.04	.38	.10	.13	1.18	.22	1.03	1.17	1.79	2.54	.88	.39	.08	.36	35.2	9.5	1.03	1.58
1924	944,386	19.2	11.6	83	.01	.08	.02	.19	.10	.13	1.09	.28	1.16	1.04	1.85	2.02	.93	.38	.10	.26	36.6	16.6	1.17	1.67
1925	952,766	18.8	11.7	78	.00	.13	.03	.19	.12	.09	1.14	.36	1.16	1.12	1.85	2.02	.93	.38	.10	.26	36.6	16.6	1.17	1.67
Average	961,222	20.8	11.5	80	.00	.13	.03	.19	.12	.09	1.14	.36	1.16	1.12	1.85	2.02	.93	.38	.10	.26	36.6	16.6	1.17	1.67
1926	961,222	18.7	11.3	73	.00	.08	.01	.13	.12	.07	1.09	.41	1.26	1.07	2.12	1.88	.73	.40	.12	.36	35.1	11.5	1.45	2.14
1927	969,752	17.8	11.8	75	.00	.13	.01	.13	.12	.07	1.09	.41	1.26	1.07	2.12	1.88	.73	.40	.12	.36	35.1	11.5	1.45	2.14
1928	976,500	17.6	10.9	65	.00	.20	.01	.13	.09	.13	1.09	.41	1.35	0.94	2.41	1.56	.67	.48	.16	.42	35.4	13.9	1.86	1.97
1929	981,000	17.1	13.5	79	.00	.20	.01	.13	.09	.13	1.09	.41	1.35	0.94	2.41	1.56	.67	.48	.16	.42	35.4	13.9	1.86	1.97
1930	982,000	17.7	10.8	60	.01	.06	.02	.11	.09	.13	1.09	.41	1.35	0.98	2.57	1.32	.60	.44	.15	.40	30.6	7.6	1.58	2.44
Average	1,011,300	16.9	11.6	71	.00	.18	.01	.12	.09	.13	1.09	.41	1.46	0.77	2.90	1.61	.62	.45	.15	.38	33.0	10.7	1.74	2.05
1931	1,017,500	16.3	11.3	67	.00	.18	.01	.13	.03	.13	1.09	.41	1.46	0.87	2.73	1.47	.59	.45	.15	.38	33.0	10.7	1.74	2.05
1932	1,017,500	14.7	11.0	66	.00	.08	.02	.03	.03	.14	1.09	.41	1.43	0.78	2.94	1.32	.61	.40	.17	.39	33.7	7.8	1.68	2.06
1933	1,023,000	15.3	11.0	68	.01	.05	.01	.06	.08	.15	1.09	.41	1.43	0.78	2.94	1.32	.61	.40	.17	.39	33.7	7.8	1.68	2.06
1934	1,028,000	15.4	10.9	64	.00	.02	.01	.06	.08	.15	1.09	.41	1.43	0.78	2.94	1.32	.61	.40	.17	.39	33.7	7.8	1.68	2.06
1935	1,033,000	15.4	10.9	64	.00	.02	.01	.06	.08	.15	1.09	.41	1.43	0.78	2.94	1.32	.61	.40	.17	.39	33.7	7.8	1.68	2.06
Average	1,033,000	15.4	10.9	64	.00	.02	.01	.06	.08	.15	1.09	.41	1.43	0.78	2.94	1.32	.61	.40	.17	.39	33.7	7.8	1.68	2.06
1936	1,038,000	15.8	11.2	67	.00	.08	.01	.08	.08	.13	1.09	.41	1.46	0.76	2.95	1.35	.62	.44	.18	.38	34.6	8.1	1.66	2.07
1937	1,042,000	15.3	11.3	62	.00	.07	.01	.10	.06	.13	1.09	.41	1.57	0.69	3.43	1.22	.62	.45	.19	.38	34.6	8.1	1.66	2.07
1938	1,048,000	16.3	11.7	60	.00	.07	.01	.10	.06	.13	1.09	.41	1.57	0.69	3.43	1.22	.62	.45	.19	.38	34.6	8.1	1.66	2.07
1939	1,052,000	16.6	10.9	61	.00	.07	.01	.10	.06	.13	1.09	.41	1.57	0.69	3.43	1.22	.62	.45	.19	.38	34.6	8.1	1.66	2.07
1940	1,050,000	16.9	14.3	70	.00	.02	.01	.05	.03	.16	1.09	.41	1.58	0.67	3.65	1.16	.45	.39	.15	.36	29.1	13.7	0.86	1.72
Average	1,050,000	16.9	14.3	70	.00	.02	.01	.05	.03	.16	1.09	.41	1.58	0.67	3.65	1.16	.45	.39	.15	.36	29.1	13.7	0.86	1.72
1941	950,000	16.8	11.9	63	.00	.03	.01	.06	.06	.21	1.09	.41	1.59	0.80	3.45	1.43	.56	.44	.14	.38	30.3	9.8	0.87	1.99
1942	965,000	19.3	11.8	56	.00	.02	.00	.06	.04	.34	1.09	.41	1.59	0.80	3.45	1.43	.56	.44	.14	.38	30.3	9.8	0.87	1.99
1943	965,000	20.9	12.1	55	.00	.02	.00	.06	.04	.34	1.09	.41	1.59	0.80	3.45	1.43	.56	.44	.14	.38	30.3	9.8	0.87	1.99
1944	990,000	22.8	11.3	42	.00	.03	.00	.06	.04	.15	1.09	.41	1.59	0.80	3.45	1.43	.56	.44	.14	.38	30.3	9.8	0.87	1.99
1945	990,000	19.9	11.2	50	.00	.03	.00	.06	.04	.15	1.09	.41	1.59	0.80	3.45	1.43	.56	.44	.14	.38	30.3	9.8	0.87	1.99
Average	1,017,100	19.9	11.9	54	.00	.03	.00	.06	.04	.15	1.09	.41	1.59	0.80	3.45	1.43	.56	.44	.14	.38	30.3	9.8	0.87	1.99
1946	1,017,100	22.5	11.3	40	.00	.02	.00	.06	.04	.15	1.09	.41	1.59	0.80	3.45	1.43	.56	.44	.14	.38	30.3	9.8	0.87	1.99
1947	1,076,280	22.2	11.1	41	.00	.02	.00	.06	.04	.15	1.09	.41	1.59	0.80	3.45	1.43	.56	.44	.14	.38	30.3	9.8	0.87	1.99

No.	Causes of Death	Sex	AGES AT DEATH										All Ages	AGES AT DEATH										All Ages
			0-	1-	2-	5-	15-	25-	45-	65-	75-	85-		0-	1-	2-	5-	15-	25-	45-	65-	75-	85-	
1	Typhoid & Paratyphoid Fever...	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1A	Small Pox	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	Measles	M.	3	7	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	Scarlet Fever	F.	1	5	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	Whooping Cough	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5	Diphtheria	F.	7	9	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6	Influenza	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6A	Poliomyelitis	F.	1	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6B	Polio Encephalitis	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7	Encephalitis Lethargica	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	Cerebro-Spinal Fever	M.	2	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9	Tuberculosis of Respiratory System	F.	1	2	10	2	4	33	146	187	32	6	422	—	—	—	—	—	—	—	—	—	—	—
10A	Tubercular Meningitis	M.	1	1	5	3	79	110	48	9	4	269	—	—	—	—	—	—	—	—	—	—	—	—
10B	Tuberculosis of the Abdomen	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10C	Tuberculosis of Spinal Column	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10D	Tuberculosis of Joints	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10E	Disseminated Tuberculosis	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10F	Tuberculosis of Glands and other parts	F.	1	2	1	3	1	1	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11	Syphilis	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12	General Paralysis of Insane, Tabes Dorsalis	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13A	Cancer of Bucca	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13B	" Digestive Organs	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13C	" Peritoneum	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13D	" Respiratory Organs	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13E	" Genital Organs	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13F	" Breast	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13G	" Urinary Organs	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13H	" Skin	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13I	" Other Organs	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE III

CASES OF INFECTIOUS DISEASE NOTIFIED AND VERIFIED DURING 1947  
CLASSIFIED ACCORDING TO SEX AND AGE

Disease	Sex	AGE GROUPS														Total
		0-1	1-2	3-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75 up		
Enteric Fever .....	M.	—	—	—	—	—	—	1	—	—	—	1	—	—	2	
	F.	—	—	—	—	1	—	3	1	1	1	—	—	—	7	
Scarlet Fever .....	M.	3	51	136	271	117	51	15	15	10	2	1	1	—	673	
	F.	2	54	124	252	178	50	31	23	13	5	2	—	—	734	
Diphtheria .....	M.	4	12	29	27	10	4	2	3	3	2	2	—	—	98	
	F.	—	8	26	29	25	11	10	11	3	1	1	—	—	125	
Erysipelas .....	M.	—	3	1	3	2	3	4	8	35	29	15	9	4	116	
	F.	1	3	1	4	4	4	3	22	19	40	40	22	7	170	
Pulmonary Tuberculosis.....	M.	5	26	17	29	16	81	87	133	100	109	93	28	3	727	
	F.	3	17	14	21	16	86	94	129	55	33	20	5	3	496	
Tubercular Meningitis .....	M.	1	6	2	—	2	—	—	—	—	—	—	—	—	11	
	F.	1	3	2	4	—	4	—	1	—	—	—	—	—	15	
Tuberculosis of Peritoneum & Intestines	M.	—	1	1	—	1	1	—	—	—	—	1	1	—	6	
	F.	—	1	—	—	1	1	2	3	—	—	—	1	—	9	
Other forms of Tuberculosis	M.	—	8	5	8	9	8	5	10	6	12	3	—	—	74	
	F.	1	6	4	4	9	12	9	8	6	6	2	2	—	69	
Cerebro-spinal Fever .....	M.	13	6	6	8	5	8	1	2	3	1	—	1	1	55	
	F.	8	7	5	6	6	3	2	5	1	1	1	—	—	45	
Anterior Poliomyelitis	M.	1	18	15	15	16	6	3	11	4	1	—	—	—	90	
	F.	5	4	12	19	7	6	9	13	6	—	1	—	—	82	
Polio-encephalitis	M.	—	1	—	—	1	—	—	—	—	—	—	—	—	2	
	F.	—	—	—	—	—	1	—	—	—	—	—	—	—	1	
Encephalitis Lethargica .....	M.	—	1	1	—	—	—	—	—	1	—	—	—	—	3	
	F.	—	—	1	—	—	—	—	—	2	—	—	1	—	4	
Malaria .....	M.	—	—	—	—	—	—	4	8	2	—	—	—	—	14	
	F.	—	—	—	—	—	—	—	1	—	—	—	—	—	1	
Dysentery .....	M.	6	21	2	2	—	1	1	5	2	2	1	—	—	43	
	F.	1	15	3	—	—	—	—	4	2	—	—	—	—	28	
Smallpox .....	M.	—	—	—	—	—	—	1	—	—	—	—	—	—	—	
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pneumonia .....	M.	49	76	50	56	25	35	24	64	77	104	87	75	31	753	
	F.	39	64	52	42	16	22	17	37	46	50	45	39	37	500	
Ophthalmia Neonatorum	M.	469	—	—	—	—	—	—	—	—	—	—	—	—	469	
	F.	349	—	—	—	—	—	—	—	—	—	—	—	—	349	
Puerperal Pyrexia .....	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	F.	—	—	—	—	—	13	69	129	37	1	—	—	—	249	
Measles .....	M.	309	1579	1752	1987	85	59	14	31	10	2	—	—	—	582	
	F.	308	1556	1735	2047	120	69	51	53	14	2	1	1	—	595	
Whooping Cough	M.	217	528	555	454	11	1	—	3	3	—	—	—	—	177	
	F.	250	639	635	522	16	3	4	7	4	2	2	—	—	208	
Undulant Fever	M.	—	—	—	1	—	—	—	—	—	—	—	—	—	—	
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	



# BLE IV

## BIRTH, DEATH AND INFANT MORTALITY RATES IN WARDS, 1947

WARDS	Estimated Population	BIRTHS		DEATHS		INFANT DEATHS	
		Number	Rate per 1,000 population	Number	Rate per 1,000 population	Number	Rate per 1,000 live births
Paul's .....	19,423	540	27·8	290	14·9	28	52
Mary's .....	15,618	403	25·8	244	15·6	21	52
Uddeston and Nechells .....	24,253	722	29·8	345	14·2	41	57
Bartholomew's .....	16,601	497	29·9	252	15·2	21	42
Martin's and Deritend .....	18,934	539	28·5	319	16·8	28	52
Market Hall .....	12,475	335	26·9	209	16·8	29	87
Adwywood .....	22,281	598	26·8	342	15·3	37	62
Average Rate of Central Wards .....	129,585	3,634	28·0	2,001	15·4	205	56
Dozells .....	25,773	573	22·2	349	13·5	21	37
Ston .....	27,296	683	25·0	364	13·3	33	48
Cashwood Heath .....	32,577	666	20·4	318	9·8	21	32
Stitley .....	24,302	597	24·6	280	11·5	26	44
Small Heath .....	27,446	650	23·7	299	10·9	22	34
Darkbrook .....	27,936	742	26·6	333	11·9	35	47
Walsall Heath .....	28,772	766	26·6	379	13·2	47	61
Edgbaston .....	30,022	553	18·4	336	11·2	14	25
Stotton Park .....	27,011	625	23·1	375	13·9	25	40
St. John's .....	24,327	595	24·5	333	13·7	34	57
Average Rate of Inner Ring Wards .....	275,462	6,450	23·4	3,366	12·2	278	43
Handsworth .....	24,297	498	20·5	321	13·2	18	36
Handwell .....	21,877	378	17·3	261	11·9	11	29
Handsworth .....	29,721	593	20·0	385	13·0	14	24
Handsworth .....	77,848	1,638	21·0	524	6·7	56	34
Handsworth .....	34,987	615	17·6	322	9·2	21	34
Handsworth .....	31,996	704	22·0	347	10·8	34	48
Handsworth .....	29,332	659	22·4	298	10·2	29	44
Handsworth .....	63,405	1,536	24·2	449	7·1	52	34
Handsworth .....	37,201	798	21·5	329	8·8	39	49
Handsworth .....	37,607	729	19·4	350	9·3	22	30
Handsworth .....	48,215	910	18·9	393	8·2	17	19
Handsworth .....	33,565	734	21·9	426	12·7	24	33
Handsworth .....	47,377	968	20·4	522	11·0	27	28
Handsworth .....	31,780	652	20·5	368	11·6	23	35
Handsworth .....	37,920	795	21·0	431	11·4	33	42
Handsworth .....	48,394	1,046	21·6	405	8·4	41	39
Handsworth .....	35,661	594	16·7	353	9·9	24	40
Average Rate of Outer Ring Wards .....	671,183	13,847	20·6	6,484	9·7	485	35
Ward of domicile not known .....		4	—	148	—	4	—
Handsworth .....	1,076,230	23,935	22·2	11,999	11·1	972	41

# INDEX

## A

Adoption of children, 75  
Aged and infirm persons, 10  
Allowances—tuberculosis 162  
Ambulance services, 9  
Analytical laboratory, 9  
Anterior poliomyelitis, 123  
Antenatal clinics, 47, 53  
Anti-tuberculosis centre, 156  
Area of City, 5

## B

Babies' Hospital, 63  
Bacteriological laboratory, 8  
Bartley Reservoir, pollution of, 83  
Baths, etc., 94  
Birmingham Corporation Act, 1946,  
(Section 59), 84  
Births, 23, 174, 177  
Birth rates, 5, 23, 174, 177  
Birth control clinics, 80  
Blindness, prevention of, 151  
Bourne House annexe, 45  
Bronchitis, 7

## C

Canal boats, 87  
Cancer, 7  
Canwell Hall Babies' Hospital, 63  
Cerebro-spinal Meningitis, 127, 137  
Child Health Institute, 78  
Child Life Protection, 77  
Child welfare centres, 53  
Children placed in homes, 75  
Children's clinics, 55  
Circulatory diseases, 7, 174  
City general hospitals, 11  
City infectious diseases hospitals, 128  
City laboratories, 8, 151, 165  
City maternity homes, 45  
City midwifery service, 43  
City nurseries, 66  
Common lodging houses, 86  
Cows and cowsheds, 109  
Cream, synthetic, 108

## D

Dairies administration, 107  
Day nurseries, 66  
Deaths, 6, 175, 177  
Death rates, 6, 174, 177  
Death Rate 4 weeks to 1 year, 28  
Dental clinics, 57  
Diphtheria, 118, 129

Diphtheria immunisation, 119  
Disinfection, 96  
District midwifery, 41  
Domestic help scheme, 62  
Domiciliary midwifery service, 42  
Dudley Road Hospital, 11  
Dysentery, 123, 138

## E

Ear, nose, throat and eye conditions, 58  
Emergency maternity service, 44  
Encephalitis lethargica, 127, 148  
Enforcement Section, 85  
Enteric fever, 117, 143

## F

Factories Act, 87  
Food and Drugs Act, 115  
Food, inspection of, 105  
Food poisoning, 123  
Foster mother service, 77  
Fumes, 93

## G

Gastro enteritis, 138  
Glandular fever, 117  
Gonorrhoea, 171  
Guidance clinic for parents, 58

## H

Health education, 64  
Health visiting in the home, 49  
Health Visiting Service, 49  
Health visitors' training course, 48  
Heathfield Road maternity home, 45  
Heart diseases, 7, 174  
Highcroft Hall maternity home, 46  
Home helps, 63  
Home nursing, 10  
Homes, voluntary, 72  
Hospital, Babies', 63  
Hospital, Dudley Road, 11  
Hospital, Selly Oak, 15  
Hospital laboratories, 7, 151, 165  
Hospitals, City general, 11  
Hospitals, City infectious, 128  
House inspection, 83  
Houses-let-in-lodgings, 87  
Houses, new, 99  
Housing, 97  
Housing survey, 103  
Housing and tuberculosis, 161  
Housing Act, 1936, 100



## INDEX—*continued*

### I

Ice cream, 105  
 Illegitimacy, 23, 28  
 Immunisation against diphtheria, 119  
 Immunisation against measles, 117  
 Infant life protection, 77  
 Infant mortality, 5, 23, 25, 174, 177  
 Infant mortality—Cause of Death, 25  
 Infant mortality in Wards, 29  
 Infant mortality rates, 23, 174, 177  
 Infectious diseases, 116, 176  
 Infectious diseases hospitals, 128  
 Infirm and aged persons, 10  
 Infirmary, Selly Oak, 15, 21  
 Institutional midwifery, 45

### K

Kitchen, Bacchus Road, 67  
 Kitchen, Selly Oak, 67  
 Kitchen, Yardley Green, 67

### L

Laboratory facilities, 8, 151, 165  
 Lice, 95  
 Licences and priority certificates, 84  
 Light clinics, 57  
 Lodging houses, 86  
 Lordswood maternity home, 45

### M

Malaria, 123  
 Mass radiography, 167  
 Maternal mortality, 5, 23, 32, 174  
 Maternity and child welfare, 23  
 Maternity and child welfare centres, 53  
 Maternity homes, 45  
 Maternity services, 41  
 Maternity service—emergency, 44  
 Measles, 117, 133  
 Meat, 112  
 Medical inspection of pre-school children, 55  
 Midwives, 42  
 Midwives, training of, 44  
 Milk and Dairies, administration, 107  
 Milk examination, 110  
 Milk supply, 107

### N

Neonatal mortality, 23, 26  
 New houses, 99  
 Noise, 94  
 Nuisances, 83  
 Nurses Hostel, 69  
 Nurseries, 66  
 Nursing in the home, 10  
 Nursing Homes, 48

### O

Offensive trades, 86  
 Ophthalmia neonatorum, 41  
 Outwork, 90  
 Overcrowding, 103

### P

Parents' guidance clinic, 58  
 Pemphigus neonatorum, 41, 144  
 Pneumonia, 7, 147,  
 Polioencephalitis, 127  
 Poliomyelitis, 123, 144  
 Population, 5, 174  
 Postnatal clinics, 47, 53  
 Premature baby ward, 37  
 Prematurity, 34  
 Prevention of blindness, 151  
 Public baths, 94  
 Puerperal pyrexia and sepsis, 39, 146

### R

Radiography, Mass, 167  
 Rats, 90  
 Redevelopment, 101  
 Refresher courses, surveys, visits, 61, 62  
 Rehabilitation, 167  
 Remedial exercise clinics, 57  
 Removal of aged and infirm, 10  
 Residential nurseries, 69  
 Residential schools, 72  
 Respiratory diseases, 7, 174  
 Routine sampling of Corporation water supply, 82  
 Rodent control, 90  
 Rubella, 148

## INDEX—*continued*

### S

Sanatoria, 162,  
Sanitary inspection, 83  
Sanitary Inspection Staff, 86  
Scabies and verminous conditions, 95  
Scarlet fever, 117, 131  
Schools, residential, 72  
Selly Oak Hospital, 15  
Selly Oak Hospital and Infirmary, 15  
Selly Oak Infirmary, 15, 21  
Shell fish, 114  
Shops, supervision of, 91  
Smallpox, 117, 148  
Smoke, 93  
Squatters camps, 84  
Statistics, vital, during 1947 and  
previous years, 174  
Statistics, summary, 1947, 5  
Stillbirths, 23, 24  
Surveys, visits and refresher courses,  
61, 62  
Swimming baths and pools, 94  
Synthetic cream, 108  
Syphilis, 171

### T

Tents, vans and sheds, 87  
Tonsils and adenoids, 58  
Town and country planning act, 101  
Training course for health visitors, 36  
Training of midwives, 44  
Training of nursery students, 68  
Treatment centres and clinics, 10

Treatment of ear, nose, throat and eye  
conditions, 58  
Tuberculosis, 109, 152  
Tuberculosis and milk supply, 112  
Tuberculosis dispensary, 156  
Tuberculosis sanatoria, 162  
Tuberculosis visitors, 160  
Tuberculosis care work, 161  
Tuberculosis allowances, 162

### U

Ultra-violet light clinics, 57  
Undulant fever, 117  
Unmarried mothers, 73

### V

Vaccination, 117  
Venereal diseases, 8, 171  
Verminous conditions and scabies, 95  
Visitors, health, 49  
Visitors, tuberculosis, 160  
Vital statistics, 5, 174  
Voluntary homes, 72

### W

Wake Green Road maternity home, 45  
Water supply, 82  
Wells, 83  
Whooping cough, 118, 135